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PROCEEDINGS

OF

The Agri-Horticultural Society,

MADRAS.

GOVERNMENT BOTANICAL GARDENS
LIBRARY.
Section.....
No.....

Vol. ~~IX.~~ VIII (NEW SERIES)

1893-94-95.

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INDEX.

PAGE.

A.

Acknowledgments ... 23, 152, 106
Ægle marmelos to Revenue Board 202
Abroma augusta to Revenue Board 202
Adhatoda vasica 18
Agency 25, 109, 157
Agave americana, fibre ... 100
Agave rigida var sisaiana... 16, 17, 104, 132, 150
Alterations in the gardens .. 26, 104
Albizzia moluccana seed to Zanzibar 126
Ammophila arenaria 96
Andaman Island, Plants to and from see Port Blair
Annual Meeting ... 15, 96, 103, 149
Araucaria excelsa loss of ... 34
„ seed 194
Araujia albens 184, 218
Arundel, Mr. A. T., about Rain tree growth 145, 222
Auditors election, report and thanks to... 3, 18, 27, 29, 74, 110, 146, 167, 158 & 161

B.

Bambusa siamensis 69
Bamboo, square 221
Bangalore Gardens, Tagasaste at. 67
Beetles see Palm Beetles ...
Board of Revenue about *Ex. Officio* Member 197
„ Ægle and Abroma to... 202
„ tree seeds to... ... 64
Books and periodicals... 1, 3, 15, 33, 38, 41, 49, 51, 57, 61, 66, 71, 77, 84, 97, 116, 118, 121, 125, 131, 133, 138, 142, 144, 165, 169, 186, 192, 196, 199, 204, 206, 209, 214, 219, 223
Bourne, Dr. A. G.... ... 96, 217
Brown, Mr. T., about Tea ... 35, 36
Budget Estimate ... 139, 215

PAGE.

C.

Cactus clump, removal of ... 208
Calcutta Horticultural Society see Mr. P. Lancaster.
Cameron, Mr. J., about Agave rigida 16
Canaigre see Rumex hymenocephalus ... ...
Celestial chilly 143
Ceylon Gardens, Victoria plants to 203, 207
„ ground nuts to ... 99
Clogstoun, Hon. H. F. *Ex. Officio* Member 197
Cleghorn, Dr. H. F. (late) ... 200
Channel to Nursery 37
Chairman ... 19, 99, 190, 154
Chepauk Park, seed to ... 64
Chrysanthemums ... 54, 55
„ culture 52
„ grafting 85
„ from Punjab gardens ... 74
Colombo School of Agriculture, Paddy to 221
Cola acuminata ... 207, 212
Coffee shade seed to Zanzibar ... 221
Coffea stenophylla ... 122, 184
Coffee Borer 79, 98
Conington, C. W. Esq ... 34
Contributions of seeds and plants 107
Concert, smoking 34
Consulting architect, about seed tested 138
Committee members... 23, 109, 111, 154, 161
„ *Ex. Officio* 197
Cossipore Bot. Gardens about Tagasaste... 67
Cox, Colonel H. W. H. 29, 112, 154, 161
„ resignation of ... 212, 217
„ Extraordinary Member. 217
Crombie, D. A. J. Esq., ... 112, 143
Cynodon seed to Trinidad ... 212
Cytisus proliferus ... 42, 58, 67, 78
Cyclone 68

PAGE.

D.

Donation to late Ganabathy ... 99
Drugs of India, prize for ... 44
Duncan, Hon. Dr. D. ... 56, 143

E.

Emery, Mr. W. F. ... 56, 62, 74
Euryale ferox ... .62, 201
Exchange of seeds, plants, &c. 107 150, 132, 154
Experimental gardens, water supply to 45, 64
Expenditure and Income ... 27, 28, 109, 154
Ex. Officio Member 197

F.

Ferguson, Mr. T. J., about Coffea stenophylla 184
Financial Statement ... 20, 27, 47, 59, 60, 74, 102, 110, 124, 136, 148, 191, 159, 203, 213, 228
Ficus tsiela, curious growth on.. 64
Flower Show ... 4, 25, 85, 109, 170, 153
„ Government grant for. 39, 217

G.

Ganabathy (late) donation to... 99
Garden seats, new ... 138, 168
Gardeners ... 17, 22, 70, 109, 153
Garden Maistries asking to exclude Chepauk, Govt. House from competing ... ...
Government grant... 23, 99, 105, 146, 153, 217
Gollan, Mr. W., about mahogany... 39
Grenada Garden, Kola seed from 207, 212
Grevellia seed to Java ... 226
Groundnut seed to Ceylon Gardens 99
Grose, Hon. Mr. J. ... 46, 51 & 117
Guatteria trees, removal of ... 55, 58

H.

Head Clerk's pay, &c. ... 17, 168
Helianthus argyrophyllus ... 167

PAGE.

Holmes, W. Hamilton Esq... 116, 222
„ Tagasaste 42, 67
„ Maram grass to ... 96
Honorary Secretaryship ... 212, 217

I.

Incorporation of Society ... 22
Income and Expenditure... 27, 28, 109, 154

J.

Japanese Wine-Berry... ... 134
Jail Department for show ... 185
Java gardens, seeds to ... 226
Judges for Flower Show ... 147

K.

Kew Garden, Pedalium murex to 197
Kew Bulletin, extract about coffee 123
Kola seed 207, 212
Knight, H. M., about Coffee exhibits 3

L.

Lancaster, P. plants to and from 50, 63, 195
Latouche, Colonel, H. W. ... 29
Leighton, D. E. W. Esq., ... 116
„ "Peperoli" 73
Liberian Coffee 201
Library 22, 164, 152

M.

Madras Mail, extract about Plantain 186
Mamey apple 127
Man, H., see Port Blair ...
Maram grass 116
Medleywood, J., about Araujia ... 218
Members ... 26, 30, 29, 109, 113, 154, 163
McKertich, late Mr. 39
Money Prize in lieu of medals... 96
Moore, Colonel G. J. M. 79, 99, 154, 190
Morus serrata... ... 72, 130
Moth catching Plant ... 184, 218
Muckerji Mr. N. G., about Morus 72

PAGE.

N.

Nagpur Gardens about Tagasaste 67
,, plants to 220
Nepaul Pepper 119
Nicholson's Dictionary, purchase of 58, 64
Norton, Mr. E., about Medal for Roses 189
Nursery, water to 45, 64

O.

Oakes, W. H., Esq. ... 146, 167
Obituary... ... ... 23, 200
Oryctes Rhinoceros, see Palm Beetle ... ...

P.

Pachyrrhizus ovatus 40
Paddy for Colombo 221
Palm Beetle 63, 222
Palm seedlings 40
Pedalium seed to Kew ... 197
Peperoli seed 73
Plantain in Malabar 186
Plants to Members, see seeds to.
Plants added ... 24, 106, 157
Polygonum sachalinense ... 78
Port Blair plants, &c. to and from ... 35, 44, 56, 63, 119, 123, 138, 146
Powell, Mr. E. B. ... 222, 226
Prize list revision of... 46, 116, 205, 208
Proceedings of Government ... 22, 105, 153
Psamma arenaria 116
Publications, &c. exchange of... 23, 108
Punjab Horticultural Society, Chrysanthemums from ... 74

S.

Sand Binding grass 96
Season 21, 103
Seeds tested... ... 51, 126, 207
Seeds to be purchased from English firms 198
Seeds collected at the gardens 4, 16, 34, 39, 41, 50, 73, 119, 194, 197

PAGE.

Seeds and plants contributed to the gardens... 1, 16, 33, 41, 50, 51, 57, 62, 67, 72, 78, 85, 98, 116, 119, 121, 126, 131, 133, 138, 142, 145, 166, 186, 193, 196, 199, 205, 210, 215, 206, 220, 225
Seeds to Botanical Gardens... 23, 108, 151
,, Members ... 23, 108, 151
,, Sold ... 24, 108, 151
Sewell, Colonel Fane ... 200, 202
Sibthorpe, Surgeon-General . 222
Silk Report 183
Silky Oak seed to Java... ... 226
Simla, Anendale gardens, Tagasaste at 67
Sister in charge, sisters of the church about free supply of plants ... 2
Slater, C. Esq., ... 117, 120, 138
Smoking concert 34
Spathelia simplex 134
Special Prize for Cossipore garden Show 74
Spurrier, Dr. A. H. Albizzia seed to 221
Square Bamboo 221
Stephen, J. H., see Nagpur ...
Sturrock, Hon. Mr. J. ... 147
Superintendent re-engaged and thanks 17, 83, 96
Swietenia macrophylla at Calicut... 122
,, Mahogani 39

T.

Tagasaste 42, 58, 67
Tea oil 34
Tea report ... 13, 35, 36, 95, 181
Thurston E. Esq., 83 about Palm Beetle ... 222
,, Agave fibre ... 100
,, Coffee borer insect 98
Tithonia tagetiflora 200
Trees planted 69, 217, 221, 134, 139
Tree seeds collected see seeds ...
Tree measure 42, 226
Trimen, Dr. H., see Cylon ...
Trinidad Gardens, Cynondon seed to 212
True, A. E. Esq., proceedings, &c., to 129
Tukpt Singhjee, Rao Bahadur (late) 23

PAGE.

V.

Victoria regia seed and plants to Ceylon 205, 207, 211

W.

Walker, J. L. Esq., about chrysanthemum culture..... 52
,, thanks to 112
Washington, Ex., Station proceedings to 129
Water supply... ... 21, 104, 149
Water pipes to the Garden Nursery 19

PAGE.

Winterbotham, H. B., about Coffea Liberica 201
Wire trellis for plant houses ... 63
Woodrow, G. M. Mr. about Tithonia 200
Wylie, Mrs. seeds from ... 119

Y.

Yam Bean 40

Z.

Zanzibar, coffee shade seed to ... 221

Proceedings for January, 1893, held on Monday 6th February, 1893.

PRESENT :

Colonel G. J. M. MOORE, (*in the Chair.*)

Colonel Fane Sewell.	Dr. A. G. Bourne.
Hon'ble H. F. Clogstoun.	R. Branson, Esq.
D. A. J. Crombie, Esq.	

Colonel H. W. H. Cox, (*Hony. Secretary.*)

The following contributions were made to the library, during the month :—

Iconography of Australian Salsolaceous Plants by Baron Ferd. Von Mueller, K.C.M.G., &c., 8th Decade, 1891.

L'Illustration Horticole, Revue Mensuelle, &c., part 12 of Vol. 6, 1892.

Kew Bulletin of Miscellaneous Information for December, 1892 and Appendix III of 1892.

Bulletin of the Botanical Department of Jamaica, No. 37 for November, 1892.

Indian Forester for December, 1892, Vol. XVIII, part 12.

Proceedings and Journal of the Agri-Horticultural Society of India for July to September, 1892.

Records of the Geological Survey of India, Vol. XXV part 4, 1892.

Report on the Department of Land Records and Agriculture, Burma, for the year 1891-92.

Annual Report of the Director, Land Records and Agriculture, Bombay Presidency, for the year 1891-92.

Proceedings of the Madras Government of 21st December, 1892, No. 1281 on Material condition of the Agricultural classes.

Proceedings of the Madras Government of 20th December, 1892, Nos. 1277, 1277A on Forest Administration Report.

Proceedings of the Madras Government of 13th December, 1892 No. 1252 on Quinine.

Revised Distribution List of Agricultural notes, Pamphlets, and reports issued by Local Governments and Administrations.

Memoranda on the prospects of Cotton crop of the season 1892-93, Sesamum crop of Berar, Winter Oil-seeds crop of the season, 1892-93, Wheat crop for the season 1892-93, Mustard crop of Assam, Linseed crop of Berar and Wheat crop of Berar, from the Revenue and Agricultural Department, Calcutta.

Memoranda on the Oil-seeds crop of the Punjab, for 1892-93, Cotton crop of the Punjab, Wheat crop of the Punjab, Sesamum crop of Punjab, and Indigo crop of the Punjab for the year 1892, from the Department of Land Records and Agriculture, Punjab.

Memoranda on Sesamum crop for the season 1892-93, Rice crop of 1892, and early Cotton crop of the Deccan and late crop of Gujarat from the Department of Land Records and Agriculture, Bombay.

Memoranda on forecast of the Rape and Linseed crop of the N. W. and Oudh for 1892-93, Wheat crop for 1892-93, and Cotton crop for 1892 from the Department of Land Records and Agriculture, N. W. P. and Oudh.

Rice crop Prospects for 1892-93 of the Department of Land Records and Agriculture, Burma, dated Rangoon, 13th February, 1893.

Memorandum on late sown Gingelly for 1292-93 of the Department of Land Records and Agriculture, Madras.

Note on the Dairy Herd and Fodder Crops at the Poona Farm, dated 22nd December, 1892.

Bulletins No. 25 (Palmyra Palm and its uses) and 26 (Sugar Mills) of the Department of Land Records and Agriculture, Madras.

Suttons' Amateurs' Guide in Horticulture for 1893.

The following contributions were made to the gardens :—

Seed of Cassia alata from J. H. Stephen, Esq., Assistant Superintendent, Lal Bagh, Bangalore.

Seeds of Phœnix rupicola and Wallichia disticha from the Superintendent, Royal Botanic Garden, Calcutta.

The undermentioned seeds from Baron Ferd. Von Mueller, K.C.M.G., &c., Government Botanist, Melbourne :—

Terminalia grandiflora.
" platyphylla.
Moringa pterygosperma.
Kennedya prostrata.
Sterculia quadrifida.
Tecoma jasminoides.
Boronia megastigma.

Seeds of Livistona chinensis and Chamærops sp. from W. Strachan, Esq., Superintendent, Municipal Garden, Karachi.

Seed of Ficus Trimeni from J. Beck, Esq., Morvi, Kattywar.

Plants of Actiniopteris radiata, Cheilanthes mysorensis and Hemionites cordata from M. Devarajulu.

Tree Seeds, &c.—List of Seeds collected during January, 1893, for distribution to members and Botanical Gardens :—

Achras sapota.
Antigonon leptopus.
Albizzia Lebbek
Aristolochia elegans.
Bauhinia acuminata.
Do. monandra.
Barleria lupulina.
Do. involucrata.
Canna indica.
Cassia sp.
Canella alba.
Cycas circinalis.
Sideroxylon grandifolium ?
Cassia alata.
Hibiscus sp.
Gmelina arborea.
Manihot Glaziovii.
Nyctanthes arbor-tristis.
Sabal minor
Strychnos nux-vomica.
Toddalia aculeata.
Terminalia melanocarpa.
Turnera elegans.

Read letter from the Sister in charge of the Sisters of the Church, Vepery Square, Madras, dated 8th January, 1893, requesting to be supplied with flowers and plants gratuitously.

The Committee regret they cannot accede to the request for plants.

Read letter from Henry M. Knight, Esq., Venture Estate, Tenkasi, dated, 9th January, 1893 :—

"No mention as far as I can see is made of coffee either Arabian or Liberian in your Annual Exhibition Prize List. May I suggest that some notice should be taken of a product so important in Southern India.

Extract from Proceedings, dated 13th April, 1889, will be sent to Mr. Knight who will be informed that for a long series of years prizes were offered for coffee but were discontinued for sufficient reasons.

Auditors.—Resolved that Messrs. D. A. J. Crombie and J. G. McKertich be asked to be so good as to audit the accounts of the Society for past year, as they so kindly did those of 1891.

Judges for Flower Show.—Resolved that the gentlemen in the Honorary Secretary's list, be invited to officiate as Judges at the approaching Flower Show.

Accounts for January 1893, read and passed.

Proceedings February, 1893, held on the 6th March, 1893.

PRESENT :

Colonel G. J. M. Moore.	Dr. D. Duncan,
Mr. R. Branson, Esq.	A. T. Arundel, Esq., C.S.
D. A. J. Crombie, Esq.	Colonel H. W. H. Cox,
W. H. Oakes, Esq.	*Hony. Secretary.*

The following contributions were made to the library during the month :—

Annual Report on the Gardens of His Highness the Maharaja of Oodeypore, G.C.S.I., for 1891-92.

Report on Crop Experiments of Bombay Presidency, for 1891-92.

Report on the Viticultural work during 1887-89, and Reports of experiments on methods of fermentation, &c. from the University of California.

Tropical Agriculturist for January and February, 1893.

Dictionary of the Economic Products of India, by Dr. Watt, Vol. VI Part I.

Bulletin of the Botanical Department, Jamaica for December, 1892.

Indian Forester for January, 1893, Vol. XIX No. 1.

L'Illustration Horticole, Vol. VII No. I of 1893.

Acta Horti Petropolitani Tomus, XII No. 11 1892.

Report on the Daria—Daulat Bagh, Working of the Government Museum of Mysore, and Government Botanical Gardens and Parks, Bangalore, for the year 1891—92.

Bulletin van Het Kolonial Museum to Haarlem for February, and September, 1892, and January, 1893.

'Revue Agricole' for July, 1892, No. 7.

Vilmorin-Andrieux and Co.'s general wholesale seed list, for 1892—93.

Proceedings of the Madras Government No. 50 on Manure, Milch-cattle and brood mares, and Nos. 12 and 12 A on the Administration Report of the Department of Land Records and Agriculture for 1891—92.

Memoranda on First Forecast of the Linseed crop of the Central Provinces for 1892—93, dated Nagpur, 17th December, 1892, Paddy Crops for 1892—93, dated Madras 16th February, 1893.

Mustard Crop of Assam, dated Calcutta, 9th February, 1893, Cotton Crops in Bengal, for 1892; Cotton Crop of the Central Provinces, Nagpur 9th December, 1892; Wheat Crop of the Central Provinces, dated, Nagpur, 17th December, 1892; Til Crop of the N. W. Province and Oudh for 1892; Sesamum Crop of the season 1892—93 dated, Calcutta, 26th February, 1893, and Cotton Crop, of Madras for 1892—93.

The following contributions were made to the Gardens during the month :—

Seeds of Cleome speciosissima from the Superintendent, People's Park, Madras.

Packet of seed of Ipomæa paniculata from Mr. J. Beck, Morvi.

One pound of Liberian Coffee seed from Mr. J. T. Ferguson, Calicut.

A packet of palm seed (name unknown) from Mr. Bowan

Seed of Euterpe edulis from the Director, Botanic Garden, British Guiana.

The undermentioned seeds from the Director Royal Botanic Garden, Peradeniya, Ceylon.

Acrocomia sclerocarpa.
Pinanga paradoxa.
Oncosperma filamentosa.
Livistona chinensis.
Ptychosperma McArthurii
Areca glandiformis.
Pinanga patula
Calyptrocalyx spicatus.
Oncosperma fasciculata.

Seeds of the following trees and shrubs were collected in the Gardens for distribution &c :—

Ægle marmelos.
Adansonia digitata.
Bauhinia tomentosa.
Clitoria ternatea.
Canella alba.
Cycas circinalis.
Helianthus cucumerifolius.
Hiptage madablota.
Hæmatoxylon campechianum.
Meyenia erecta.
Natal compositæ, white flowered.
Nyctanthes arbor-tristis.
Strychnos nux-vomica.
Salvia coccinea.
Terminalia melanocarpa.
Thunbergia fragrans.

Flower Show, 1893.—The Annual Show of flowers, fruits, vegetables, &c., was held this morning at the Agri-Horticultural Society's Garden at Teynampett, and was as

great a success as those held in previous years. His Excellency the Governor arrived early and was conducted over the Show by the Judges of the various classes. The vegetables are the first to attract attention, and, notwithstanding the failure of the North-East Monsoon, the display was a very good one indeed. The market gardeners have, with few exceptions, sent specimens quite up to exhibition form. In the Amateur Class, Mr. T. W. Laing, has a goodly show of vegetables, his beetroots, tomatoes and some magnificent specimens of chillies and capsicums on the plants, attracting attention. In Class I, Mr. Elialwar Naidu, Mr. Purushotum Moodelliar and the People's Park are the only exhibitors of roses in bloom. Messrs. Clogstoun and A. E. Lawson are the only exhibitors of carnations and picotees. The geraniums and pelargoniums exhibited by Mr. W. Morgan are one of the sights of the Show. The chrysanthemums are a small but select exhibit, Messrs. Clogstoun and Walker being, as far as we could determine, the only exhibitors. Mr. Laing, excels also in flower gardening, his skill in this branch being represented by a beautiful little collection of violets and heliotrope. For annuals, the Jaghirdar of Arnee and Mr. R. B. Mitchell run a very close race with a magnificent collection of double balsams. Mr. Elialwar Naidu's collection of phloxes, is also excellent. The Rev. W. W. Elwes, is about the only exhibitor of double asters. The gems of the Show, however, are reached when we get to Class IV, in which Mr. J. Steavenson's exhibition of ferns is really beautiful. Mr. W. H. Oakes, has a smaller but almost as varied and certainly quite as artistically arranged a collection on view, Mr. McConoghie exhibits a giant maiden hair fern. In foliage plants, the Jaghirdar of Arnee, has a splendidly varied assortment ; other exhibitors are the Chepauk Park and the Buckingham Hotel, which last seems to stake to reputation on a magnificent collection of crotons. Mr. E. Norton, has a fine collection of palms, and he and the Jaghirdar of Arnee a pretty selection of dracænas. An exhibit that might easily be overlooked is a beautiful and varied collection of aralias and panax, which Mr. Steavenson sends. The fruit, as usual, makes a magnificent

show. Huge rosy apples, immense oranges, and citrons, pummaloes and strawberries, form a tempting display and one in which it must have been difficult to adjudge the prizes. The Economic section is an interesting one. Messrs. Spencer and Addison and a host of native dealers, exhibit cigars, &c. Messrs. Spencer and Co., as usual, having a booth in which they show the process of manufacture from the raw product to the finished article. Other economic products are fibres for textile uses, medicinal and other barks, &c. We had almost omitted to call attention to a class of exhibits that certainly ought to be better represented than they are. We refer to Class IX, Flowers and Vegetables, which is open only to Soldiers,Non- Commissioned and Warrant Officers and the Police. The only competitors, however, are Soobroyan and Shama Row, of the City Police, who divide between them the prizes for this class.

PRIZE LIST.

CLASS I.—Flowers in Pots, exclusive of Annuals.

JUDGES.—Dr. D. Duncan and Mr. D. A. J. Crombie.

Best general collection of not less 20 varieties, one pot of each, Rs. 10 —Chepauk Park.

Best collection of Roses of not less than 12 var ieties, Rs. 15—P. Elialwar Naidu, Esq.

Second best collection of Roses, Rs. 7—C. J. Hay Ellis, Esq.

Best Verbenas, not less than 12 kinds, Rs. 5—A. A. Hall, Esq.

Best Carnations, Picotees, Pinks and Dianthus, not less than 12 varieties, Rs. 5—H. F. Clogstoun, Esq.

Second best Carnation, Picotees, Pinks and Dianthus, Rs. 2—No prize awarded.

Best collection of Creepers (Perennial), one pot of each, not less than 12 varieties, Rs. 10—P. Elialwar Naidu, Esq.

Second best Perennial Creepers, Rs. 5—No prize awarded.

Best Geraniums and Pelargoniums, not less than 6 varieties. Rs. 5—W Morgan, Esq.

Best collection of Cannas in pots, not less than 10 varieties, Rs. 5—No prize awarded.

Best collection of Begonias in flower, not less than 8 varieties, Rs. 5—Raghavalu Naidu.

Best collection of Perennial Phloxes, Rs. 3—No prize awarded.

Best Chrysanthemums, Rs. 5—J. L. Walker, Esq.

Second best Chrysanthemums, Rs. 2—H. F. Clogstoun, Esq.

Best Violets, Rs. 3—T. W. Laing, Esq.

Best Heliotropes, Rs. 3—T. W. Laing, Esq.

Best collection of Hibiscus, Rs. 5—W. H. Oakes, Esq.

JUDGES' REMARKS.—With the exception of roses, chrysanthemums, geraniums and begonias, the exhibits showed the effects of the recent unfavourable seasons. The number of exhibits under the several prizes was fair, in some cases there was only one.

CLASS II.—Annuals grown in Pots.

JUDGES.—Mr. C. Slater and Mr. J. M. Gleeson.

Best collection of not less than 18 varieties, Rs. 10—The Rajah of Ramnad.

Best double Balsams, not less than 10 pots, Rs. 5—R. B. Mitchell, Esq., Second best Balsams, Rs. 2—G. Thümmler Esq., Both collection very good.

Best Portulaccas, not less than 6 pots, Rs. 5—The Rajah of Ramnad. Very good.—The collection that did not get the prize was a very fine one but not out in and lower.

Best Asters, not less than 12 pots, Rs. 5—Poor, prize cancelled.

Best Phloxes, not less than 12 pots, Rs. 5—R. U. Potts, Esq., Second best Phloxes, Rs. 2—W. H. Oakes, Esq., Moderate.

Best Creepers, not less than 8 varieties, Rs. 5—Mariappa Naicker Poorly represented.

Best Petunias, not less than 6 pots, Rs. 5—P. Elialwar Naidu, Esq., Second best Petunias, Rs. 2—A. Nealagunta Mudaliar. Poorly represented.

Best double Zinnias, not less than 6 colours, Rs. 5—L. Purushotum Moodelliar. Fair.

CLASS III.—Cut Flowers.

JUDGES.—The Hon'ble Justice Handley and Mr. J. L. Walker.

Best collection of choice Cut Flowers, Rs. 5—H. E. Lady Wenlock.

Second best collection of choice Cut Flowers, Rs. 3—T. W. Rawlins, Esq.

Best Hollyhocks, not less than 12 spikes, Rs. 3—T. W. Rawlins, Esq.,

Best Dahlias, not less than 6 varieties, Rs. 3—S. R. Turnbull, Esq.

Best collection of Cut Roses, Rs. 3—H. E. Lady Wenlock.

JUDGES' REMARKS.—For the best collection of choice cut flowers there were four competitors, two of the collections were decidedly better than the others. After mature consideration the prize was awarded to H. E. Lady Wenlock, Mr. Rawlins taking the second prize. Considering the dryness of the season, we think both these collections most creditable. The arrangement of Mr. Rawlins' collection was in our opinion too cramped and the other exhibits (excepting the one to which the first prize was awarded) had the same fault. There were two good

exhibits of hollyhocks. Mr. Rawlins, here secured the first prize. The prize for dahlias was awarded to Mr. Turnbull, who had some very perfect specimens of two varieties. Neither of the exhibits evenly good but allowance must be made for the season. In cut roses, there were two exhibitors and here H. E. Lady Wenlock secured a first prize. Mr. Clogstoun had some very fine specimens of *red* roses which are most difficult to grow in Madras, but as a whole, for variety and excellence of arrangement, Lady Wenlock's collection was undoubtedly the best.

CLASS IV.—Ferns, &c.

JUDGES.—Dr. A. G. Bourne and Mr. A. T. Arundel.

Best collection of Ferns, a silver medal, Joseph Steavenson, Esq.

Second best collection of Ferns, Rs. 10—W. H. Oakes, Esq.

Best grown Ferns, not less than 5 pots, Re. 1—Eardley Norton, Esq.

Single Specimen Fern, Rs. 8—T. Krishnaswany Naidu.

Best bulbous and tuberous plants, not less than 6 varieties in flower, Rs. 5—W. H. Oakes, Esq.

Best collection of fine foliage plants, not less than 20 varieties, and not more than 2 pots of each, Rs. 15—The Jaghirdar of Arni.

Second best collection of foliage plants, Rs. 7—Chepauk Park.

Best collection of Caladiums, only one plant of each variety to be exhibited, Rs. 7 - Joseph Steavenson, Esq.

Best collection of Alacasias, only 1 plant of each variety, Rs. 5—C. J. Hay-Ellis, Esq.

Best collection of Palms, Cycads, and other Palmaceous plants, not less than 10 varieties, Rs. 10—Eardley Norton, Esq.

Best collection of Crotons, not less than 15 varieties, Rs. 10—P. Elialwar Naidu, Esq.

Second best collection of Crotons, Rs. 5—Proprietor, Buckingham Hotel.

Best collection of Dracænas, not less than 8 varieties, Rs. 10—Eardley Norton, Esq.

Second best collection of Dracænas, Rs. 5—The Jaghirdar of Arni.

Best single shrub grown in Madras in the tub or pot in which it is exhibited, Rs. 5—The Jaghirdar of Arni.

Best Aralias and Panax, Rs. 5—Joseph Steavenson, Esq.

Best collection of Lycopodium and Selaginella, Rs. 5—T. W. Laing, Esq.

JUDGES' REMARKS.—*Ferns.* An excellent collection. *Best Grown Ferns.* The Judges regret that the number of exhibits was so small. *Single Specimen Ferns.* Two of the exhibits were very good. *Best bulbous and tuberous plants.* A greater variety is to be desired ; only one collection met the conditions. *Fine foliage plants.* The exhibits were good but exhibitors should take more care to show not more than two pots of each variety. *Caladiums.* The exhibit being of remarkable excellence the prize was awarded, although it was the only exhibit.

Alocasias. The prize collection contained some very fine plants, the other exhibit also deserved commendation. *Palms, etc* The Judges regret that the number of varieties was not larger and that there was no competition. *Crotons.* All the exhibits were very fair. *Dracænas.* The number of entries was small but both collections contained some very fine varieties. *Aralias.* A very good collection. *Lycopodium, etc.* The competition was somewhat disappointing.

CLASS V.—Rare Plants.

JUDGE.—Mr. C. W. Conington.

Best collection of any plants not previously exhibited, grown in the Madras Presidency or Mysore, Rs. 15—The Superintendent, Guindy Park.

CLASS VI.—Vegetables grown in Madras by Amateurs.

JUDGES.—Messrs. W. Hamilton-Holmes, W. F. Emery and R. U. Potts.

Best Celery, not less than 5 stalks, Rs. 3—H. E. the Governor.
Best Beetroot, not less than 6 roots, Rs. 2—H. E. the Governor.
Best Turnips, not less than 6 roots, Rs. 2—T. W. Laing, Esq.
Best Carrots, not less than 6 roots, Rs. 2—T. W. Laing, Esq.
Best Onions, not less than 12 bulbs, Rs. 3—Robert F. Grant, Esq.
Best Cucumbers, not less than 6, Rs. 2—B. Lovery, Esq.
Best Vegetable Marrows, not less than 6, Rs. 2—Robert F. Grant, Esq.
Best Yams, not less than 6, Rs. 2—H. E. the Governor.
Best Tomatoes, not less than 12, Rs. 2—T. W. Laing, Esq.
Best Asparagus, Rs. 2—no prize.
Best collection of Salad plants, Rs. 4—T. W. Laing, Esq.
Best Peas, Rs. 2—T. W. Laing, Esq.
Best Brussels Sprouts, Rs. 2—No Exhibits.
Best Arrowroot, Rs. 2—E. A. S. Nicholas, Esq.
Best Tapioca, Rs. 2—E. A. S. Nicholas, Esq.
Best Lettuces, Rs. 2—Robert F. Grant, Esq.
Best Knol-khol, 6 specimens, Rs. 2—C. Chelvarunga Raj.
Best Jerusalem Artichokes, Rs. 2—Robert F. Grant, Esq.
Best Chillies, Rs. 2—Robert F. Grant, Esq.
Best collection of Indian Vegetables, Rs. 3—One exhibit only. Poor, —no prize.
Best collection of English Vegetables. Rs. 3—H. E. the Governor.
Best Radishes, Rs. 2—Robert F. Grant and Chelvarunga Raj.
Best Chillies and Capsicums, grown in pots, Rs. 2—T. W. Laing, Esq.

JUDGES' REMARKS.—The general display in our opinion is scarcely up to the average, but this probably is accounted for in consequence of the exceptionally unfavourable season. The exhibits, however, of H. E. the Governor and those of Messrs.

Robert F. Grant and T. W. Laing, were deserving of special commendation both as regards quantity and number of exhibits. No. 10 Asparagus, No. 13 Brussels Sprouts and No. 20 Indian Vegetables, the exhibits were so poor that no prize was awarded.

CLASS VII.—Vegetables (grown anywhere).

Open only to Market Gardeners.

JUDGES.—Rai Bahadur A. Thanakoti Mudaliar, Mr. J. P. Nicholas, and Mahomed Mirza Ismail Khan Bahadur.

Celery, 6 stalks, 1st prize, Rs. 4, Rudrappah; 2nd prize, Rs. 2, Munisawmy
Knol-khol, 6 specimens, 1st prize, Rs. 3; 2nd prize, Rs. 2—only one exhibit.
Beetroot, 6 roots, 1st prize, Rs. 3, Parthasarathy; 2nd prize, Rs. 2, Rudrappah.
Carrots, 6 roots, 1st prize, Rs. 3, Parthasarathy; 2nd prize, Rs. 2, Rudrappah.
Turnips, 6 roots, 1st prize, Rs. 3, Parthasarathy; 2nd prize, Rs. 2, Rudrappah.
Onions, 24 bulbs, 1st prize, Rs. 3, Rudrappah; 2nd prize, Rs. 2, Parthasarathy.
Cabbages, 6 heads, 1st prize, Rs. 4, Parthasarathy; 2nd prize, Rs. 2, Rudrappah.
Vegetable Marrows, 1st prize, Rs. 3, Veeraragava; 2nd prize, Rs. 2, Parthasarathy.
Cucumbers, 1st prize, Rs. 3, Cundasawmy; 2nd prize, Rs. 2, Rudrappah.
French Beans, 1st prize, Rs. 2, Veeraragava; 2nd prize, Re. 1, Ramasawmy,
Kidney Beans, 1st prize, Rs. 2, Davanaikan Naidu; 2nd prize, Re. 1 Yellapah.
Tomatoes, 1st prize, Rs. 3, Venkatachellum; 2nd prize, Rs. 2, Parthasarathy
Chillies, 1st prize, Rs. 3; and prize, Rs. 2—No prizes awarded.
Brinjals, 1st prize, Rs. 3, Rudrappah; 2nd prize, Rs. 2, Sabapathy.
Bandikai, 1st prize, Rs. 3, Varatha Naiker; 2nd prize, Rs. 2, Murugan.
Potatoes (a) Large, 1st prize Rs. 3,—Munisawmy.
Potatoes (*b*) Small, 1st prize Rs. 3,—Murugasen.
Peas, 1st prize, Rs. 3 Veeraragava; 2nd prize, Rs. 2 Murugasen.
Best collection of Salad plants, prize Rs. 2,—No. exhibits.
Lettuces, 1st prize, Rs. 2, Ramaswamy; 2nd prize Re. 1, Veeraragava.
Cauliflowers, 1st prize, Rs. 3, Rudrappah; 2nd prize Rs. 2, Parthasarathy.

JUDGES' REMARKS.—On the whole, a good collection, especially considering the dry season.

CLASS VIII.—Fruits.

Open to All.

JUDGES.—Colonel T. O. Underwood Mr. D. E. W. Leighton and Mr. R. Branson.

Best Strawberries, Rs. 10—Gullappa.
Best Raspberries, Rs. 3—T. Muthappa.

Best Peaches, Rs. 9—Narrainsawmy (rare excellence).
Best Apples, Rs. 8—Syed Ahmed.
Best Pears, Rs. 5—No exhibitors.
Best Sweet Oranges, 24 specimens, Rs. 3—Munisawmy.
Best Pumplemoses, 6 specimens, Rs. 2—Rungasawmy Moodelliar.
Best Figs, 12 specimens, Rs. 5—B. Narainsawmy (very fine).
Best Grapes, 3 bunches, Rs. 5—B. Narainsawmy.
Best Sapodillas, 24 specimens, Rs. 3—T. Govindsawmy Naicker.
Best Melons, 6 specimens, Rs. 3—Yellamah.
Best Plantains, Rs. 3—Cuniappa Naicker.
Best Lemons, 12 specimens, Rs. 5—Paramasiva Moodelliar.
Best Limes, Rs. 3—Paramasiva Moodelliar.
Best Guavas, Rs. 3—B. Narainsawmy.
Best Citrons, Rs. 3—Paramasiva Moodelliar.
Best collection of Dried Fruits, Rs. 5—Murugasa Naicker.

JUDGES' REMARKS.—Apples and oranges were exceptionally good. The other exhibits were fair. No pears were exhibited, there was only one exhibitor of peaches. His exhibit being of rare excellence, he was awarded a prize.—

CLASS IX. Flowers and Vegetables.

JUDGE.—Mr. C. W. Conington.

OPEN ONLY TO SOLDIERS, NON-COMMISSIONED AND WARRANT OFFICERS, AND THE POLICE.

Best collection of Flowers in pots, Rs. 10—(Subroyan) Constable, Egmore Police Court.
Second best collection of Flowers in pots, Rs. 5—(Sama Row), Station House Officer, Kilpauk Police Station.
Best collection of Vegetables, Rs. 10—(Sama Row,) Station House Officer, Kilpauk Police Station.
Second best collection of Vegetables, Rs. 5—(Subroyan) Constable, Egmore Police Court.

EXTRA PRIZE LIST.

JUDGES.—Mr. T. A. Taylor and Mr. W. Keess. The Government having placed at the disposal of the Society a sum of Rs. 500, they have much pleasure in offering the following prizes, which will be open to the produce of the Madras Presidency, Hyderabad, Mysore, Coorg, Travancore, and Cochin:—

A Gold Medal for the best sample, and a Silver Medal for the second best sample, of Tea of good quality, that is largely sold by retail within the prescribed area, and is so moderately priced, as to be suited for general consumption Gold Medal—Woodcote Estate. Silver Medal—Ouchterlony Estate.

N. B.—The samples exhibited shall be not less than 30 lbs. in weight, and competitors must sign and forward a declaration that they are the growers and preparers of the same, and that they have been grown since

the last exhibition, and form part of a "break" of at least 1,000 lbs. The Exhibits will be sent for valuation to a Tea Broker in Calcutta, and the prizes awarded by the Judges in accordance with the Broker's Report.

A Silver Medal for the best cured Dindigul Tobacco.—Addison and Co.

A Silver Medal for the best cured Lunka Tobacco.—Madras Cigar Manufacturing Company.

A Silver Medal for the best Cheroots.—Spencer and Co.

A Silver Medal for the best Pipe Tobacco.—No award as no exhibitors.

N. B.—Each Exhibit of tobacco shall be of not less than 10 lbs. in weight; and each Exhibit of Cheroots shall comprise 100 Cheroots of each of five different shapes, *i.e.*, 500 Cheroots in all. Each Exhibit of Pipe Tobacco shall be of not less than 10 lbs. in weight, and ready for use. Exhibitors of Cheroots must state the price at which they are prepared to sell 10,000 Cheroots of each shape. Competitors must sign and forward a declaration that they are the growers *or* preparers of the Exhibits.

Offers of prizes for Cotton are renewed, and a Silver Medal will be awarded for the best Exhibits of Westerns, Tinnevelly and Cocanada Cotton respectively. Each Exhibit shall consist of 75 lbs. of cleaned Cotton and 25 lbs. of Cotton in Kuppahs, and shall represent the produce of a certain acreage certified to by the Village Munsif. The awards will be made by merchants appointed to be Judges at the Show.—No award as no exhibitors.

A Silver Medal for the best sample of silk of not less than 1 lb. in weight.—Mr. J. E. Cammiade.

A prize of Rs. 10 for the best sample of Tussa silk of not less than 1 lb. in weight—D. Cunniah Shaw.

A Silver Medal for the best general collection of produce usually exported from Madras. Each article to have its name and use given—J. Chelvarunga Raj.

A prize of Rs. 10 for the best collection of green Forage—Yagamburam Naicker.

A Silver Medal for the best collection of Forest products, *e. g.*, gums, oleo-resins, wax, dyes, &c.—J. Chelvarunga Raj.

A prize of Rs. 10 for the best collection of cleaned Fibres—J. Chelvarunga Raj.

A Silver Medal for the best collection of economic plants—C. T. Muniswamy Moodelliar of Perambore.

A prize of Rs. 10 for the best sample of Silage—No competition.

JUDGES' REMARKS.—No. 1. 10 exhibits of various qualities, the Judges have guided in their award by owners' price and probable valuation, best quality for the cheapest price. No. 2. The exhibit to which prize was awarded was unusually free from large or prominent veins, others showed extra moisture. No. 3 rather a poor show. No. 4 Messrs. Spencer and Co., besides showing excellent quality of work have exhibits of extreme cheapness as well as fair quality for the price. No. 5 and 6. No Exhibits. No. 7. an interesting Exhibit displaying the various processes of preparation for export. No. 8. Several Exhibitors but not much display of quality. No. 9, Exhibit show that great trouble was been taken to make the collection

representative and displays a fair knowledge of the subject. No. 10 A good collection and evidently *bona fide* from the District. No. 11 and 12. Remarks under No. 9, equally apply. No. 13. A very superior collection by a professional Exhibitor. No. 14. One poor Exhibit. No competition. No prize awarded.

NEW MART.

MESSRS. JARDINE SKINNER & CO.,

CALCUTTA, 28*th January*, 1893,

Dear Sirs,

We beg to hand you our report and valuations on the following samples of Tea from Agricultural Horticultural Society, Madras.

Your obedient servants,

J. SKINNER & CO.

Brokers.

Marks & Tin Nos.		Ex. 1/3½ Valuation per lb.	Description.
1	Hope Estate	1*s.*	Small wiry Pekoe leaf, fair tip, little brisk liquor wants strength.
2		1*s.* 1*d.*	Rather open black Broken Pekoe, few ends, fair strength wants freshness.
3		9½*d.*	Good black Broken Tea, little strong liquor.
4	Glendale Tea Estate.	1*s.* 5*d.*	Small good tippy Pekoe, rather flavoury liquor light.
5	Woodcote Estate ...	1*s.* 3*d.*	Rather bold slytish Broken Pekoe kind, fair tip, flavoury liquor wants briskness.
6	Red Hills Estate	8½*d.* for leaf.	Good even Pekoe Souchang leaf, few ends thin burnt.
7		9½*d.* for leaf.	Rather curly Pekoe leaf, fair tip thin poor burnt liquor.
8	Venture Tea Estate	9½.	Good black Pekoe Souchang leaf, few ends, little strong.
9		1*s.* 4*d.*	Leafy black tippy Broken Pekoe fairly strong full.
10		11*d.*	Rather bold black Pekoe leaf, fair tip, little full rather brisk, liquor.

Nos. 1, 2, 3.—These are well made Teas, have a good coloured leaf fair liquor though without very much quality.

Nos. 4, 5.—Are stylish well polished Teas, in appearance, the liquors have a certain amount of flavour, but are inclined to be soft which may passibly arise from being packed in paper. The infused leaf is bright but not Coppery in colour.

Nos. 6, 7.—The Teas have a fair appearance but are very undesirable in cup being thin burnt. The infusions are most uneven mixed with black leaves.

Nos. 8, 9, 10.—These are fairly useful Teas but we think the assortment might he improved ; as No. 9, is a mixture of Pekoe Broken Pekoe and No. 10, of Pekoe, Pekoe Souchang.

The special thanks of the Society and the public are due to those gentlemen who by the largeness of their Exhibits contributed so much to the success of the show.

The Society and the public are also much indebted to H. E. the Governor for the services of His band, who played at the gardens until one p.m., and for his tents, tables, carpets, &c., The Inspector General of Ordnance, The Commissary General, The Commissioner of Police, The President, Municipal Commission, Mr. J. P. Nicholas, The Commissioner of U. C. S. Examination, Messrs. Deschamps and Co., and other gentlemen for the use of their tents, tables, benches, chairs, carpets and other necessaries.

Read letter from Mr. D. A. McCready, dated, Madras Penitentiary, 11th February, 1893, asking the Honorary Secretary whether he can exhibit vegetables and flowers for competition in the IX class which is open to the Military, Police, Non-Commissioned and Warrant Officers.

Resolved that at the next Flower Show Class IX be thrown open to Jail Department.

Read letter from Rev. W. W. Elwes, dated, Nungumbakum 27th February, 1893, stating that the double asters exhibited in his name, which gained the prize, were exhibited without his permission and knowledge and were not grown in his garden.

The prize awarded for asters is cancelled.

Superintendent.—Mr. Gleeson's engagement with the Society, terminates early in April, and it is desirable that some arrangement be made to secure a successor. It is proposed that the following advertisement be sent to the newspapers.

Wanted a Superintendent for the Agri-Horticultural Society's Gardens, Madras. European or Eurasian: Salary according to qualifications but not to exceed Rs. 100 per mensem with house. Apply with copies of certificates to Hon. Secretary, Agri-Horticultural Society, Madras.

Resolved that the above advertisement be published.—

Resolved that the Annual Meeting of the Members of the Society be held on Saturday, the 25th Instant, at 7-30 a.m.

Proceedings for March, 1893, held on 3rd April, 1893.

PRESENT.

Colonel G. J. M. Moore.	Dr. D. Duncan.
Colonel Fane Sewell.	Colonel H. W. H. Cox.
D. A. J. Crombie, Esq.	

The following contributions were made to the library during the month :—

Annual Administration Report of the Forest Department, Madras Presidency, for 1891-92.

Annual Report of the Department of Agriculture, Brisbane, for 1891-92.

Bulletin of the Botanical Department, Jamaica, for January, 1893 No 39.

Proceedings and journal of the Agricultural and Horticultural Society of India for October—December 1892.

Journal of the Royal Horticultural Society, Cheswick parts, 2 & 3 of Vol. XV.

Indian Forester for February, 1893, Vol. XIX No. 2, and Appendix by T. H. Holland.

L'Illustration Horticole Vol. 7 No. 2 of 1893.

Tropical Agriculturist for March 1893 No. 9 of Vol. XII.

Report on the Government Botanical Gardens and Parks, Bangalore, for the year, 1891-92.

Index Seminum in hortis Musœi Parisiensis Anno, 1892.

Kew Bulletin of Miscellaneous Information for January, 1893, and appendix I, of 1893.

Proceedings of the Madras Government, No. 49 and 49 A about Cretaceous Rocks of Trichinopoly District; No. 161 about clearing of Prickly pear, and No. 119 and 119 A about Phosphatic nodules.

List of seeds collected in the Royal Botanic gardens, Edinburgh, during 1892.

Delectus Seminum quae Hortus Botanicus Imperialis Petropolitanus 1892.

William Reid and Leys spring catalogue of garden flower seeds, &c. 1893.

Vilmorin-Andrieux et cie's catalogue of palm and other seeds, 1893.

Hand-Book of Commercial Products, No. 10, about Adhatoda vasica, and No. 12, Fibres, used for Brush-making by E. Thurston, Esq.

Memoranda on oil-seed crop, Sessamum crop, Cotton crops in Bengal, Mustard crop, Cotton crop of the year, Wheat crop, Oil seeds crop of 1892—93, Wheat crop of 1892—93, oil seed crop of Bengal from the Revenue and Agricultural Department, Calcutta.

Memoranda on Rape seed crop and wheat crop for 1892—93 from the Department of Land Records and Agriculture, Punjab.

Memoranda on Linseed and Rapessed crops and Cotton crops for 1892—93 from the Department of Land Records and Agriculture, Bombay.

Memoranda on Wheat crop, Linseed crop, Oil crop, Cotton crop, from the Department of Land Records and Agriculture, Central Provinces.

Memoranda on Paddy crop and Cotton crop of 1892—93 from the Department of Land Records and Agriculture, Madras.

Memoranda on Til crop, linseed and rapessed crop and Wheat crop of 1892—93 from the Department of N. W. Province and Oudh.

The following contributions were made to the gardens :—

Twelve seeds of yellow Convolvulus from Mrs. Batchelor.

Seed of Corypha elata, seed and seedlings of Ptychoraphis augusta and Plants of Pandanus Mellori, Calamus Rotang and some orchids from Mr. H. Man, Port Blair.

The following is a list of the seeds collected during March, 1893, for distribution to members, &c.—

White flowered Natal Compositæ.
Meyenia erecta.
Erythroxylon Coca.
Dracæna circulosa maculata.
Chickrassia tabularis.
Brunfelsia america.
Hiptage madablota.
Sterculia fœtida.
Anogeissus acuminatus.
Cassia sp. from Mount Sinai.
Myroxylon toluiferum.
Galphima glandulosa.
Tristellateia australasica.
Elæis guineensis.
Cassia auriculata.
Acacia Sundra.
Gmelina arborea.
Inga Saman.
Haematoxylon campechianum.
Cassia fistula.
Ægle marmelos.

Agave rigida var. Sisalana.—Read the following letter from Mr. Cameron, dated Bangalore, 21st March, 1893 :—

"I enclose you the Curator's report on the condition of the three sisal plants which your Society kindly presented to the Lal Bagh in 1891. Subsequently we imported a large number of plants direct from Florida, and with the exception of about 10% of failures the plants have taken root and are growing strongly. With such a good start the Mysore Government will soon possess a very fine nursery of *Agave* var. *rigida sisalana*.

"The following are the particulars of the three Agave rigida var. sisilana plants received from Madras.

One of these has grown nicely, it is in heigth 2 feet 4 inches, circumference 6 feet, length of leaves 2 feet, suckers around the plant 10 and growth, healthy.

The other two or only half of the above plant in all respects excepting in suckers. One has only one, while the otherhas none. Treatment is pot culture.

Mr. Gleeson, reports that our Agave rigida var. Sisalana were planted out in the open ground and have leaves 2′ 6″ to 3 feet in length, the height of the plants varying from 2′ 9″ to 3 2″ and the circumference of the largest plant about 13 feet: the plants have had very little water since being planted out. A good shower fell on March and started them into growth. They have produced in all 26 young plants from suckers, some of the plants giving as many as four.

Gardener to Kodaikanal.—At the request of Mr. C. Dunell a gardener (Ponusawmy) has been engaged on a salary of Rs. 15 per month and sent on the 6th March, 93, to take up his appointment.

Late Head Clerk.—Read application from P. Sethumbara Moodellyar, dated, Royapett 11th, March 893, requesting the Committee Members to re-consider about his pension.

The Committee decline to re-open the question.

Superintendent re-engaged.—Read letter from Mr. J. M. Gleeson, dated, 8th March, 1893, offering continuance of his service to the Society as Superintendent on a salary of Rs, 125 per month, for 5 years, 3 months notice by either party to cancel the same.

Read letter from the Honorary Secretary to the Chairman and Committee Members, suggesting that Mr. Gleeson's offer be accepted.

Read also letter from the Hony. Secretary, No. 506, dated, 14th March, 1893 to Mr. Gleeson, stating that he is authorised by the Committee to re-engage him on a salary of Rs. 125 per mensem for 5 years on the termination of his present engagement ending 24th April, 1893.

Read letter from Mr. Gleeson, dated 16th March, 1893 thanking the Honorary Secretary and the gentlemen of the Committee for the honour conferred.

Auditors' Memo. on Bill Collector Retention and Ledger.

MEMO. TO THE HONORARY SECRETARY.

We would suggest that each account in the Ledger should be written up quarterly—the subscriptions being regularly debited, and the amount credited when paid. It would then be easy to take down the outstandings at the end of the year.

The system of sending out application for payment of subscriptions does not seem to us to be so good as the old one of sending out accounts by Bill Collectors. The writer has no document to produce for unpaid bills.

(Signed) D. A. G. CROMBIE, *Auditor.*
(„) J. G. McKERTICH, *Auditor.*

13*th March*, 1893.

1. This will be adopted.
2. The Bill Collector was discontinued by the Committee after due consideration, and I do not think there is reason enough for reverting to the old system.

H. W. H. COX, COLONEL,
Honorary Secretary.

14*th March*, 1893.

Adhatoda vasica.—A very interesting account of the uses of this plant is given in No. 10 of the Imperial Institute Series of Hand-Books of Commercial Products (Indian Series).

It is impossible to re-produce the contents of the Hand-Book in extenso or even to give an exhaustive summary in our Proceedings but the following extract may prove useful and suggestive :—

"The antiseptic property of the plant in killing minute organisms is while being harmless to higher forms of life, thus established by native opinion has been abundantly shown in a recent paper by Mr. Hooper in the Pharmaceutical Journal and transactions (April, 7th 1888). Mr. Hooper writes of the Chemistry of the leaves: 'A well defined alkaloid appears to be the most important constituent; it constitutes the bitter principle and to all intents and purposes, is the active principle. It occurs in white transparent crystals, belonging to the square prismatic system, without any odour, but with a decidedly bitter taste. It is soluble in water with an alkaline reaction. and in other, but more so in alcohol." It would be beside the present purpose to give here the whole of Mr. Hooper's analysis

of the substance. The above passage shows that simple maceration in water suffices to extract the active principle and Mr. Hooper's practical experiments with it may therefore be preferentially cited here. "A sample of pond water," he writes, "containing *Spirogyra* and numerous animalcules was mixed with a few drops of strong infusion of *Adhatoda* leaves. The chlorophyll gradually disappeared from the weeds and the cells, became broken up. The oxygen was given off with less frequency, and at length ceased, some insect pupæ rose to the surface of the water and there died. Numerous *Paramœcia* remained active for some time, but eventually succumbed to the action of the poison. In 24 hours, the beaker containing the water that had been thus treated, showed only a brown mass lying at the bottom; while some water in a beaker by its side, without this treatment, contained the green aquatic weeds evolving oxygen, and the animalcules alive.'

"An aqueous solution of the alcholic extract of the leaves was tried upon flies, fleas, mosquitoes, centipedes and other insects and in every case the application met with poisonous results. The solution appeared to kill them without previous intoxication. On the higher animals, the leaves do not seem to have such an effect. A quantity of the alcoholic extract representing 15 grains of the leaf, was given to a small dog and the administration was not attended with any inconvenient symptoms. These experiments show that the reputed use of the leaves in destroying injurious weeds in submerged fields is founded upon very scientific principles." "The poisonous properties of the *Adhatoda* on the lower orders of animal life will, perhaps, find for it a use in destroying insect pests, and make it an important addition to the Materia Agricolarum in India."

"Mr. Hooper, thus concluded his remarks in almost the same words as used by the writer fully a year before the date of the article in the *Pharmaceutical Journal*, viz.; that a "decoction of it might be found useful in destroying animal pests to other crops, such as Sugar-cane, Tea, and Coffee." The Chemical investigation thus briefly reviewed have placed the utility of *Adhatoda* beyond any possible doubt and its extended use should, therefore, not only be strongly urged on the attention of rice cultivators of India, wherever aquatic weeds prove troublesome, but the subject should commend itself to Tea, Coffee, and Indigo planters as well worthy of their consideration. Not only so, but it is probable we have in *Adhatoda* an antiseptic at the door of every Indian peasant which, if not found useful in the treatment of sores on his own person, could, at all events, be extensively used in the cure of the troublesome maggot-infested wounds of his cattle."

Prize for Tussa Silk.—Read letter from D. Kannisaw, dated 8th March, 1893, requesting the usual money, prize of Rs. 10 in lieu of the silver medal awarded for his best Tussa silk.

Rupees ten paid on the 10th instant.

New Pipes.—Read letter from Mr. J. M. Gleeson, the Superintendant of the gardens dated 1st April, 1893, forwarding a sketch of the Society's ground near the plant nurseries and suggesting to lay water pipes.

Resolved that the Honorary Secretary obtain an estimate of the cost of the proposal.

Chairman.—Proposed by Mr. Crombie, and seconded by Dr. Duncan, that Colonel G. J. M. Moore, be elected Chairman of the Committee. Carried unanimously.

Accounts for March, 1893, and for the first quarter of 1893 were read and passed.

Financial Statement for Jany., Feb., and March, 1893.

	Rs.	A.	P.	Rs.	A.	P.
RECEIPTS—						
Cash with Messrs. Binny & Co., on 31st December, 1892	1,246	5	7			
Cash in hand as per Receipt Book, on 31st December, 1892	61	8	0			
Cash in hand as per Expense Book, on 31st December, 1892	25	3	0			
				1,333	0	7
Miscellaneous Receipt in January, 1893 ...	852	14	6			
Do. February, 1893 ...	1,382	11	6			
Do. March, 1893 ...	1,276	3	6			
				3,512	7	6
Total...				4,845	8	1
EXPENSES—						
Pay for January, 1893	279	12	1			
Other Expenses, for January, 1893	132	5	6			
				412	1	7
Pay for February, 1893	280	4	1			
Flower Show Expenses for February, 1893 ...	339	6	0			
Other Expenses for February, 1893 ...	184	0	3			
				803	10	4
Pay for March, 1893	279	8	4			
Flower Show Expenses for March, 1893 ...	900	7	1			
Other Expenses for March, 1893 * ...	1,316	11	7			
				2,496	11	0
Cash with Messrs. Binny & Co., on 31st March, 1893	1,066	0	9			
Cash with in hand as per Receipt Book, on 31st March, 1893	60	10	0			
Cash with in hand as per Expense Book, on 31st March, 1893	6	6	5			
				1,133	1	2
Total... ...				4,845	8	1

	Rs.	A.	P.
* Including Vegetable Seeds from Messrs. Sutton and Sons	472	6	3
Flower Seeds from Messrs. Vilmorin Andrieux & Co.	528	6	0

G. J. M. MOORE,
Chairman.

COLONEL H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for April, 1893, held on the 1st May, 1893.

PRESENT:

Colonel G. J. M. Moore, (*in the chair*).

A. T. Arundel, Esq., C.S. | J. L. Walker, Esq.
C. W. Conington, Esq. |

Colonel H. W. H. Cox, (*Hony. Secretary.*)

The following contributions were made to the library:—

Records of the Geological Survey of India, Vol. XXVI, Part 1, 1893.

Administration Reports of the Royal Botanic Gardens, Peradeniya, for 1892.

Report on the operations of the Department of Land Records and Agriculture, Madras Presidency, for the year 1891-92.

Appendix II, of Kew Bulletin of Miscellaneous Information—1893.

A list of Agricultural Implements and Machines which have been tested in India during the year ended 30th September, 1892, &c.

Proceedings and Journal of the Agricultural and Horticultural Society of India, for October to December, 1892.

List of seeds collected in the Royal Botanic Gardens, Edinburgh, during 1892.

Administration Report of the Forest Department, Madras Presidency, for 1891-92.

Delectus Seminum quae Hortus Botanicus Imperialis, Petropolitanus, pro Mutua commutatione offert, 1892.

Report on Natal Botanic Gardens for the year 1892, and Annual Report of Colonial Herbarium for 1892.

Proceedings of the Board of Revenue, Madras, Dated 8th April, 1893, about distributing copies of Conspectus of Insect pests, which effect crops in India.

William Reid and Leys' Spring catalogue of Garden Flower Seeds, 1893.

Second note on the Potato Disease prevalent in the Poona District and in other parts of India.

The following contributions were made to the gardens:—

Seed of Cassia renigera, from the Superintendent, Agri-Horticultural gardens, Rangoon.

Seed of Bauhinia Sp. and ½ lb of Liberian coffee, from J. T. Ferguson, Esq., Calicut.

Fruit of Brunfelsia americana from John Cameron, Esq., Bangalore.

Seed of Lagerstroemia Flos-Reginæ from R. U. Potts, Esq., Teynampett.

Tree &c., seeds.—The following tree and shrub seeds were collected during the month for distribution to Members and Botanic gardens :—

Colvillea racemosa.
Inga Saman.
Anogeissus acuminatus.
Thunbergia fragrans.
Bauhinia acuminata.
Galphimia glandulosa.
Cassia fistula.
Cæsalpinia Sappan.
Tristellateia australasica.
Hibiscus collinus.
Ægle marmelos.
Ficus indica.
Cassia auriculata.
,, marginata.
Hura crepitans.
Isora corylifolia.
Berrya ammonilla.
Butea frondosa
Bauhinia tomentosa.
Helianthus cucumerifolius.

Smoking Concert in the Gardens.—Read letter dated 18th April, 1893, from Mrs. Fletcher, asking permission to have an Evening Smoking Concert, on the 2nd May next, in aid of the Catholic Orphanage.

Read Memo. by the Honorary Secretary, dated 19th April, and opinions of the Members of the Committee to whom the papers were circulated.

Read letter from the Honorary Secretary dated 22nd April, 1893, intimating to Mrs. Fletcher that the request for the use of the Gardens for the concert had been granted by the Committee, subject to the condition that the question of charging entrance money might be considered afterwards, if it arose, and suggesting that free admission should be granted to members of the Society if they assert the right.

Read letter from Mrs. Fletcher, dated 23rd April, accepting the use of the Gardens on this condition and thanking the Committee for their kindness.

Committee Member.—Read letter from Mr. C. W. Conington, dated 29th March, 1893, accepting the office of a Member of the Committee.

Araucaria excelsa.—The Superintendent reports the loss of a fine specimen of Araucaria excelsa growing near the Ornamental Tank, the tree through weakness and the shade of adjacent trees having become exceedingly top heavy.

Plants to Port Blair.—At the request of Mr. H. Man of Port Blair, the following plants were forwarded in a Wardian case per S.S. "Shahjehan" on the 24th April, 1893.

2	Kentia Wendlandiana.	1	Aristolochia ridicula.
2	Caryota urens.	2	Grevillea robusta.
2	Oreodoxa regia.	2	Tecoma stans var. dentata.
2	Livistona rotunda.	2	Plumieria sp.
2	Eucalyptus citriodora.	2	Sabal minor.
2	Ravenala madagascariensis.	1	Packet of seed of Miniature Sunflower.
1	Aristolochia elegans.		

Tea.—Read letter from Mr. Thomas Brown, Manager, Glendale Tea Estate, dated 11th April, 1893, forwarding an extract from the *South Indian Observer*, about Teas at the Society's late Exhibition.

"GLENDALE TEA ESTATE,

Coonoor, 11th April, 1893.

"THE SECRETARY,

AGRI-HORTICULTURAL SOCIETY,

Madras.

"DEAR SIR,

I beg to enclose for the information of your Society, Copy of a letter of mine published in the *South Indian Observer*.

The Rules of the Society for the Exhibits of Tea, I think, need alteration. There is nothing to prevent an Exhibitor from certifying that he sells a high class Tea for a low price, while, as a matter of fact, no one gets from him such a Tea at the price named.

I would suggest the following addition to the Rules.

The winner of the Medal must produce proof that 1,000 lb. of Tea similar to that Exhibited, has been sold, "before the Medal will be delivered to him."

Do you think it probable for a Planter to sell to you a 1/3 tea for 11 annas, with exchange at 1/3? Can a man however great a philanthrophist be so dead to his own interests?

The Exhibition has and will continue to do a very great deal of good in the right direction by encouraging the production of high class Nilgiri Teas, and will help to place the Nilgiris well up in the London Market. It has undoubtedly done this for "Glendale." You can make any use you like of this.

Yours faithfully,

T. BROWN,

Manager."

Teas at Madras Agri-Horticultural Exhibition.

[To The Editor, South of India Observer.]

Sir,—Your impression of the 18th March. The statement that the Tea that won the Gold Medal in 1891 was valued at 1/5 in Calcutta, and that a sample of the *same Tea* was sent to London and was there valued by two brokers at 7¾d and 8d. is *incorrect.* This is what occurred, I am told, with the Tea that won the medal in 1890, and your informant will I trust correct the *clerical* error he made, which is calculated to do the "Glendale Estate" which won the medal in 1891, considerable damage. Your informant was probably led into this error by the fact of there having been no "Flower Show" in 1892.

The following is the valuation of the Tea that won the Gold Medal in 1891.

"Glendale Estate.—Valuation 2s. 2d. to 2s 4d, small Pekoe leaf, good tip, little full brisk flavour." As certified by Glendale, the Tea of which the sample formed part, viz 1063 pounds, was sold in London at 2/-per lb. in November 1890. For the 1893 show, Glendale Estate exhibited a tea valued at 1/5 by the Calcutta Brokers and the 1,000 pound break of which this formed part was sold in London, March 2nd, 1893, at 1/4½. Report of this sale will no doubt appear in your issue of 25th instant. Brokers would never make so wide a difference in values as 1/5 and 7¾ to 8d. on the *same tea.* The following is the certificate that I sent along with my 1893 exhibit: "Certified that the sample of Tea exhibited by this estate has been grown and manufactured by me during the last four weeks, and forms part of a break of one thousand pounds, that will be sold in London, in the month of January 1893 or a little later.

That it can be sold *in bulk* on the estate at *Rupees* 1/4 per pound, etc."

Yours faithfully,

THOS. BROWN,

Manager, Glendale Estate, Coonoor.

Extract from Geo. White & Co.'s India, Ceylon and Java Tea Memoranda from 24th February to 2nd March 1893. "An invoice of Neilgherry from the Glendale Estate *stood out*, and realized an average of 1s. 2¼d. per lb.

Glendale Estate. 77 half chests, 3,080 lbs., sold, Orange Pekoe 1/4½., Pekoe 1/, Souchong 10½d., Broken Orange Pekoe 1/6¾.

Coonoor,

25th March, 1893.

Read letter from Col. H. W. H. Cox (Honorary Secretary) dated 14th April, 1893, thanking Mr. T. Brown, Manager, Glendale Tea Estate, Coonoor, for his letter about Tea Exhibits.

Read also letter from Col. H. W. H. Cox (Honorary Secretary), dated 14th June, 1893 to Mr. Staues, Coonoor.

Mr. Brown, Manager of the Glendale Tea Estate, writes suggesting the following addition to the rules for the competition for prizes for Tea at our Annual Exhibition, *viz*:—

The winner of the medal must produce proof that 1,000 lb. of Tea, similar to that exhibited, has been sold, before the medal will be delivered to him.

We are always glad to receive and consider any suggestion that may be made by persons interested in the competition, but such suggestions would have greater weight if they were made by an association of Tea Planters. Will you kindly move in their direction yourself or advise me whom to address with a view to eliciting the opinions of the Tea-planting community in general ?"

Recorded :

Read Estimates for laying pipes and making water channel to the Nursery.

Resolved that an ordinary open channel lined with tiles be adopted experimentally.

Accounts for April, 1893, read and passed.

Proceedings of the Agri-Horticultural Society of Madras for May 1893, held on 5th June, 1893.

PRESENT:

Colonel G. J. M. Moore, (*Chairman*).

C. W. Conington, Esq. | Rai Bahadoor A. Thanakoti Moodellyar.

Col. H. W. H. Cox (*Honorary Secretary.*)

Bulletin No. 22 of the Department of Agriculture, Brisbane, about cultivation of wheat in Queensland.

L'Illustration Horticole Vol. 7 No. 3. 1893.

Dictionary of the Economic Products of India Vol. VI. part II., by Dr. George Watt.

The Tropical Agriculturist, Vol. XII. No. 11, 1893.

Bulletin of the Botanical Department, Jamaica, No. 40, February, 1893.

The Indian Forester, No. 4, April, 1893.

Graines offertes en échange par le jardin Botanique de Saigon, (Cochinchine) Annee 1893.

Index Seminum in Hortis Musæi Parisiensis, Anno 1892 collectorum.

Proceedings of the Madras Government, No. 292, dated 10 April, 1893, about Statistical Returns.

Note on the Rabi crops, 1892-93, and Final Report on the wheat crop of 1892-93, in the 23 chief wheat-growing districts of Bengal, from the Department of Land Records and Agriculture, Bengal.

Bulletin No. 27 of the Madras Agricultural Department, about Grass-Farming in Coimbatore.

The following contributions were made to the gardens during the month :—

Six bags of Swietenia macrophylla seed from the Royal Botanic Gardens, Calcutta.

Four ounces of Liberian Coffee seed, from J. T. Ferguson, Esq., Calicut.

One Pound of seed of Swietenia macrophylla from the Agri-Horticultural Society of India, Calcutta.

One Packet of Thornless Erythrina seed, from B. Nelson, Esq., Chenkota, Travancore.

A Packet of Sugar Cane seed from W. Gollan, Esq., Saharanpur, N. W. P.

The undermentioned seeds were collected during the month for distribution to Members and Botanic Gardens :—

Anogeissus acuminata.
Acacia amara.
Aristolochia elegans.
Ægle marmelos.
Adenanthera pavonina.
Bombax malabaricum.
Blighia sapida.
Caryota urens.
Cordia Rothii.
Cupania canescens.
Cassia fistula.
,, glauca.
,, auriculata.
,, nodosa.
Colubrina asiatica.
Erythroxylon Coca.
Erythrina indica.
Landolphia sp.
Gmelina arborea.
Galphimia glandulosa.
Myrospermum toluiferum.
Pterospermum suberifolium.
Poivrea coccinea.
Paritium tiliaceum.
Pterocarpus Marsupium.
Parkia biglandulosa.
Sapindus emarginatus.
Strychnos nux-vomica.
Terminalia Arjuna.
,, bellerica.
Tanghinia venenifera.

Swietenia Mahagoni.—Read letter from the Superintendent forwarding seed of Mahogani collected from our gardens to Mr. Gollan.

Read also letter from Mr. Gollan, Superintendent Govt. Botanic Gardens, Saharanpur, dated 23rd May, 1893, acknowledging the seed and adding that "I sowed the seed the day I got it. It is an uncommon occurrence for it to seed in India. We have specimens which would yield boards $3\frac{1}{2}$ to 4 feet wide. They flower every year but a seed pod was never known to set.

Recorded.

Government Grant for Flower Show.—Read Proceedings of the Madras Government, Financial Department, dated 28th April, 1893, No. 414, sanctioning the usual grant of Rs. 500 to enable the Society to offer prizes at their next Annual Exhibition for special products.

Recorded with thanks.

Late Mr. J. G. McKertich.—The death on the 27th ult., of Mr. McKertich, Manager of Messrs. Binny & Co., was much regretted by the Committee. He audited the Society's accounts from 1884 to 1892 gratuitously.

Short-podded Yam-Bean.—Amongst the collection of pulse seed received without name from the Cossipore gardens, for despatch to Australia last year there was a new variety of Bean. A few seeds of the Bean were planted, grew well, cropped profusely and when identified turned out to be Pachyrhizus angulatus. The following is an extract from the Kew Bulletin No. 29 for May, 1889 :—

"A starch is made from the tubers of this plant, or the tubers when young are eaten, as in the case of Pachyrhizus tuberosus. In Fiji, where the plant is known, according to Seemann, as Yaka or Wayaka, a tough fibre is obtained from the twining stems and is used in making fishing nets.

"In a recent letter received from Dr. Trimen, F. R. S., Director of the Botanic Gardens, Ceylon, to whom Kew is indebted for herbarium specimens of both species of Yam-bean, it is stated :—

"The ordinary Pachyrhizus angulatus (from Java) is now cropping profusely here. You will be interested to know that the pods of this cannot be well used as a vegetable like those of the West Indian species (Pachyrhizus tuberosus). The pods are smaller and more hairy, and the coolies tell me that they cannot eat them in their curries without setting up a diarrhœa, due no doubt to the irritation of the hairs."

Palms.—From seeds received from different botanic gardens, &c. the following have been successfully raised :—

Livistona chinensis.	Archontophœnix Cunninghami.
Calyptrocalyx spicatus.	Phœnix rupicola.
Pinanga paradoxa.	Wallichia disticha.
Oncosperma fasciculata.	Chamærops sp. from Mr. Strachan.
Ptychosperma McArthuri.	Corypha elata.

Accounts for May, read and passed.

G. J. M. MOORE, *Chairman.*
H. W. H. COX, *Honorary Secretary*

Proceedings of the Agri-Horticultural Society of Madras for June, 1893, held on the 3rd July, 1893.

PRESENT :

D. A. J. Crombie, Esq.	Rai Bahadoor A. Thanakoti Moodelliyar.
C. W. Conington, Esq.	Col. Fane Sewell.
Dr. D. Duncan,	J. L. Walker, Esq.
Colonel G. J. M. Moore, (*in the chair.*)	Col. H. W. H. Cox, (*Hon. Secretary*)

The following contributions were made to the garden library :—

Kew Bulletin of Miscellaneous Information for February & March, 1893.

L'Illustration Horticole, Revue Mensuelle &c. No. 4 of Vol. V. May 1893.

Bulletin No. 22 of the Department of Agriculture, Brisbane, about the cultivation of wheat.

Bulletin No. 101 of the University of California.

Proceedings and Journal of the Agricultural and Horticultural Society of India, for January to March, 1893.

Annual Report of the Cossipore Practical Institution of Horticulture, Floriculture and Agriculture, for 1892.

Proceedings of the Madras Government, Nos. 350 and 350, Dated 28th April, 1893, about Pony Show and No. 323, Dated 24th April, 1893, about Specimen grasses in Sandur Range.

Agricultural Bulletin of the Malay Peninsula No. 3, 1893.

The Indian Forester for May, 1893, No. 5 of Vol. XIX.

Indian Museum Notes No. 6 of Vol. II about a Conspectus of the insects which affects crops in India.

Descriptive Catalogue of Art Manufactures, raw produce and other articles submitted by the Mysore Government to Chicago Exhibition, 1893.

Acta Horti Petropolitani part XII. 1893.

Report on the operations of the Department of Land Records and Agriculture, N. W. P. and Oudh for 1892.

Records of the Geological Survey of India, Vol. XXVI, part 2, 1893.

Hourly Meteorological observations made at the Madras Observatory from 1856 to 1861.

The following contributions were made to the gardens :—

Seed of Cocos sancona from Dr. Henry Trimen, Director, Royal Botanic garden, Peradeniya.

A Wardian case of palms and other plants from E. H. Man, Esq., C.I.E. Port Blair (For list see letter on p. 44).

Seed of Phœnix humile, Hybrid Amaryllis, and Dew Berry (Rubus trivialis) from Mr. W. Gollan, Superintendent, Botanical gardens, Saharanpur.

Two pounds of seed of Bambusa siamensis from the Director, Botanic gardens, Calcutta.

Seed of Tree Tomato (Cyphomandra betacea) from the Director, Botanical Department, Jamaica.

List of seeds of shrubs and trees collected in the Gardens for distribution to members and Botanic Gardens :—

Albizzia amara.
Sanseviera zeylanica
Cordia Rothii
Adenanthera pavonina
Caryota urens
Tectona grandis
Aleurites triloba
Terminalia melanocarpa
Sterculia fœtida
Cupania canescens
Dalbergia frondosa
Erythroxylon Coca
Prosopis spicigera
Landolphia sp.
Grevillea robusta

Tree Measurements.—The following measurements of trees taken at a height of 5 feet by the Superintendent of the Gardens, on 5th June, 1893, are here recorded, for comparison with those taken on 1st June, 1891:—

	1st June, 1891. ft.	inches.	*5th June*, 1893. ft.	inches.
Terminalia melanocarpa	2	$2\frac{1}{2}$	2	$2\frac{1}{4}$
Ailantus excelsa...	8	$4\frac{3}{4}$	8	$10\frac{5}{10}$
Adenanthera pavonina	5	$10\frac{1}{2}$	5	$10\frac{3}{4}$
Poinciana regia	4	4	4	$7\frac{1}{2}$
Adansonia digitata	20	$2\frac{3}{4}$	19	7
Swietenia Mahagoni	8	$0\frac{1}{4}$	8	8
Stereospermum chelonoides	5	$3\frac{1}{4}$	5	$4\frac{3}{4}$
Chloroxylon Swietenia	5	$3\frac{3}{4}$	5	$4\frac{3}{4}$
Sterculia urens	3	0	3	$0\frac{1}{4}$
Sclerocarya caffra	7	$4\frac{3}{4}$	7	7
Tectona grandis	5	$2\frac{1}{4}$	5	3
Guatteria longifolia	3	$0\frac{3}{4}$	3	2
Casuarina equisetifolia	4	$5\frac{1}{3}$	4	$8\frac{1}{2}$
Berrya ammonilla	2	$7\frac{3}{4}$	2	$0\frac{1}{8}$
Nauclea parvifolia	5	$8\frac{1}{3}$	5	$9\frac{1}{2}$
Castanospermum australe	2	$10\frac{3}{4}$	5	$10\frac{1}{2}$
Kigelia pinnata (measured at 3 feet) ...	10	$2\frac{5}{8}$	10	$3\frac{1}{2}$

Tagasaste.—Read letter from Mr. Hamilton Holmes, dated 18th June, 1893, fowarding an extract about "Tagasaste," Cytisus proliferus, and requesting to be informed whether the Society has introduced this valuable fodder plant, as he thinks that it would probably suit this climate and provide fodder for horses and cattle during periods of drought.

Read also the following reply to Mr. Holmes re-'Tagasaste' dated 22nd June, 1893:—

"In continuation of my letter to you of yesterday, I herein give you a few extracts from our proceedings which may be of use to you.

"In September 1879, we received a packet of seed from Kew, under the name of Cytisus proliferus var. said to be a native of the Canaries, the leafy branches of which are said to be a useful fodder. Some of the seed was sown in the Gardens and the remainder distributed to members and others interested.

"At the Annual Meeting held in March, 1880, Mr. Steavenson, the then Honorary Secretary, reports—that the seed was sown in the Gardens and distributed to correspondents for experiments, but no satisfactory result can yet be reported as almost every seed which germinated speedily perished.

"Mr. Woolley of Coonoor under date 19th March, 1880 reports that the seed was sown on 19th September 1879, a few only of them germinated in

a month or five weeks. Some of these died off before getting their second leaves and only eight remained for planting out on the 10th December when they were four or five inches high. At present only two or three are looking healthy and from them I should think very little fodder for cattle could ever be obtained.

"Rev. G. Richter of Coorg, under date 2nd August, 1880, reports that the biggest plant he grew was 4 feet high, the leaves were very small and scanty, plant not bushy nor succulent: could not see much use for it as forage.

"The late Dr. Shortt has succeeded in germinating seeds of Cytisus proliferus, "Tagasaste". The Committee asked the Doctor to report further. Vide Proceedings, December, 1880.

"Annual Meeting for 1880. The Honorary Secretary, reports that no favourable results has yet been received from any one concerning the Cytisus seed.

"Late Dr. Shortt in his report in our Proceedings for September 1881, says that the plant grew to about 2½ feet high at Yercaud, Shervaroys. The plant had a resemblance to Cajanus indicus.

"Late Dr. Shortt (14th August 1884,) reports that the plants perfected seed up at Yercaud.

"Rev. G. Richter in May 1885 reports that the plant did not answer expectations either as to size or usefulness."

Recorded.

Extract about, 'Tagasaste.'—

"A resident of Nuriotpa, South Australia, has written to the local press drawing attention to the drought-resisting and stock-feeding properties of Tagasaste, or Tree Lucerne, which was introduced to the colony about 12 years ago by the late Dr. Schomburgh. The Tagasaste is a species of Cytisus or Laburnum indigenous to the Canary Islands, where it is utilized to a great extent for feeding horses and cattle. It forms a dense spreading tree, with foliage closely resembling that of Lucerne, and much relished by all kinds of stock. It grows rapidly upon even the poorest land, and under the most favourable conditions, which comprise a warm climate and a loose, sandy soil, it frequently attains a height of from 18 to 20 feet, with a diameter of from 12 to 15 feet, within the short space of five years. However, by close planting and constant cutting or feeding off, it can be kept quite dwarf and bushy, and the more often it is cut the more valuable it becomes. In the report of the Adelaide Botanic Gardens for 1882 it is stated that stock fatten more quickly on Tagasaste than anything else, and it is recommended to mix it when fresh cut with half its weight of chopped straw. Horses are particularly fond of Tagasaste, and keep in first class condition and work as well on this as when fed with the best wheaten hay. It is said to thrive under conditions that would be fatal to almost every other useful plant, and the writer of the letter strongly recommends pastoralists and farmers in the northern districts of South Australia to lay down large paddocks of Tagasaste, which, after the first year or two would provide a never failing supply of green fodder in all seasons, and would probably render the stock-carrying capacity of their land equal to that of much more fertile and humid districts. The seeds may be sown at any time, and the young plants set out during the winter months 4 feet or 5 feet apart each way. It will be necessary to cultivate between the rows occasionally for the first two years, after which stock may be turned in and no further cultivation required. The Tagasaste forms a splendid breakwind when

planted 8 feet apart in single rows. The branches on the outer and inner side may be frequently cut and fed to stock, and this pruning will encourrage a more rapid upright growth. The sugar gum and pepper tree are often recommended for shelter belts but the great objection to these trees is that their roots spread near the surface, thus rendering the land for a considerable distance on either side practically useless. The Tagasaste, on the other hand, sends its roots down deep into the subsoil, and consequently does not interfere with the growth of adjacent plants. The importance of providing shelter for crops, stock and especially for young vineyards and orchards upon our bleak plains is not sufficiently understood, and it cannot be too strongly advocated. The Tagasaste is a valuable honey producing plant, its large, fragrant, pea shaped flowers, which it bears in profusion just at the time when other flowers are most scarce, being very much in evidence amongst bees. The seeds are excellent for poultry, and the beautiful and striking appearance of the Tagasaste—when in bloom lasting for a considerable time in Winter—entitles it to a place in every large garden or shrubbery.'

Plants from Port Blair.—Read letter from Mr. E. H. Man, C.I.E., &c., dated 30th May 1893, acknowledging the safe receipt of the Wardian case containing useful and ornamental plants sent by the Society on the 24th April, 1893 and also advising despatch of a Wardian case of plants noted at foot:—

From Nicobars.	Ptychoraphis augusta. Orania Bentinckii. Pandanus Mellori.
From Andamans.	Cycas Rumphii. Licuala peltata. Caryota sobolifera. Areca triandra. Crinum lorifolium and another plant somewhat resembling it, also found near the shore. Four varieties of Cane. Corypha elata. Orchids and ferns.

The Superintendent remarks that the plants were received in rather poor condition.

Prize for Drugs.—Read letter from the Superintendent, Cossipore practical Institute of Horticulture &c., dated 22nd June, 1893 stating that the Executive Committee of their Institution are very glad to offer a Prize of Rs. 16 for a collection of Indian Drugs on the occasion of our next Flower Show.

Accepted with thanks.

The prize will be included in the List.

Red Hills water for the Nursery and Experimental Garden.—In accordance with the Resolution passed at the Monthly Meeting of the Committee held in May, an Estimate has been prepared showing the cost of laying on Red Hills water to the Nursery in an open channel. This Estimate amounts to Rs. 110-13-6 made up of the following items:—

Connections	Rs.	51	5 6
Earthwork of channel bank	„	31	0 0
Tiles for channel	„	16	8 0
Receiving cistern	„	12	0 0
	Rs...	110	13 6

The material proposed to be used for the bank is sand which will have to be brought from a distance, I consider this material unsuitable. Better soil could be dug out of that portion of the Society's gardens lying east of the Superintendent's bungalow of which we have hitherto not been able to make any profitable use and if these were done, the bank for the channel would probably cost less than Rs. 31 but there are obvious objections to this course. Should Government at any time decide to resume any of the land now held in trust of the Society we are bound to restore in a condition as good as when we received it.

The Estimate for laying on water with Pipes amounts to Rs. 185-7-0 or if the cost of a receiving cistern is added Rs. 197-7-0.

The difference between the two Estimates is Rs. 86-9-6.

The larger estimate provides for permanent work, the smaller for a temporary makeshift which will be unsightly and probably wasteful.

The present condition of our Finances, as exhibited in the statement before the Committee, justifies an expenditure necessary during at least six months of the year for a proper development of the nursery and experimental garden which are now suffering grievously from lack of water and from the brackish nature of the little that is available.

I submit for the favourable consideration of the Committee my recommendation that the Estimate for Rs. 185-7-0 and that a further sum of Rs. 27-3-3 for a Reservoir Cistern 5×5×3 feet (inside measurement) be sanctioned.

Sanctioned.

Committee Member.—Read letter from Mr. T. W. Rawlins, dated Luz House, 6th June, 1893, resigning his seat on the Committee as he finds it difficult to attend the Meeting with any degree of regularity.

Resolved that Mr. Grose, be invited to join the Committee.

Prize list.—The revision of the list of Prizes for Annual Flower Show, 1894, was considered. Prizes of Rs. 5, each for Anthurium, and Coleus were added to Class IV; a prize of Rs. 3 for sweet herbs in pots to Class VI, and Class IX, was thrown open to the Jail Department in Madras.

Financial Statements for the month of June 1893, and April to June 1893.

Passed.

G. J. M. MOORE, *Chairman.*

H. W. H. COX, *Honorary Secretary.*

Financial Statement for April, May and June, 1893.

RECEIPT.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Cash with Messrs Binny and Co., on 31st March, 1893 ...	1,066	...	9	...	...	...	For Establishment for April, 1893.	279	7	10	...	...	...
							Other expenses for April, 1893 ...	221	1	6	500	9	4
Do. in hand as per receipt book on 31st March, 1893 ...	60	10	...	...	...	...	For Establishment for May, 1893.	281	8	8	...	...	...
							Other expenses for May, 1893 ...	380	14	4	662	7	...
Do. do. expense book on 31st March, 1893 ..	6	6	5	...	...	...	For Establishment for June, 1893	283	5	...	...	...	...
							Other expenses for June, 1893 ...	284	6	6	567	11	6
				1,133	1	2							
Miscellaneous receipts during April, 1893	906	5	...	...	...	...	Balance with Messrs Binny & Co., on 30th June, 1893 ...	1,988	...	...	...	...	...
Do. do. May, 1893...	1,157	11	...	...	...	...	Do. in hand as per receipt book on 30th June, 1893 ...	16	10	...	...	...	...
Do. do. June, 1893...	561	11	...				Do. as per expense book on 30th June, 1893... ...	23	6	4	2,028	...	4
				2,625	11	...							
Total Rupees...	...	...	...	3,758	12	2	Total Rupees...	...	...	...	3,758	12	2

Agri-Horticultural Society,
Madras, 1st July, 1893.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for July and August 1893, held on the 4th September, 1893.

PRESENT:

J. Grose, Esq., (*in the Chair.*)

D. A. J. Crombie, Esq.
Dr. A. G. Bourne.
A. T. Arundel, Esq., C. S.
Rai Bahadur A. Thanakoti Moodellyar.
J. L. Walker, Esq.

Colonel H. W. H. Cox, (*Hony. Secretary.*)

The following contributions were made to the garden library, during the month of July:—

A Hand-Book to the Flora of Ceylon by Dr. Henry Trimen, F.R.S. &c., Part 1, with plates 1—25., 1893.

L'Illustration Horticole Vol. 7, part, 5 and 6., 1893.

Bulletin of the Botanical Department, Jamaica, No. 41 and 42, 1893.

The Indian Forester for June 1893, No. 6, Vol. 19.

Guides to Commercial collections (Indian Section) No. 1, Guide to collections of 1892.

The Tropical Agriculturist for June and July 1893, Vol. XII, No. 12, and Vol. XIII, No. 1 respectively.

Proceedings of the Tenasserim Agri-Horticultural Society of Moulmein, May 13th, 1893.

Annual Note on Crop Experiments carried out in Assam during 1892-93.

Annual Report of the Government, Agri-Horticultural Gardens, Lahore, for the year ending 31st March 1893.

Report on the system of Agriculture and Agricultural statistics of the Dacca District, Calcutta, 1889.

Price list of Ornamental plants, shrubs, trees, &c. of the Agricultural and Horticultural Society of India, Calcutta, 1893.

Price list of Ornamental plants, &c., in the Agri-Horticultural Society of Burma, 1893.

Proceedings of the Madras Government, Nos. 478 and 478A dated 6th June 1893, about Administration Report of the Government, Central Museum, Madras.

Proceedings of the Madras Government, Nos. 523 and 523A dated 15th June 1893 Reviewing the Report of the Government Gardens, and Parks, Neilgherries.

Proceedings of the Madras Government, Nos 576 and 576A, 576B and 576C, dated 28th June 1893, reviewing Report on the working of Government, Cinchona Department, for 1892-93.

Proceedings of the Madras Government, Nos. 408 and 408A dated 13th May 1893 passing orders on Board's report on the transactions under the Land Improvement and Agriculturists' Loans Acts, &c.

Memoranda on Final Wheat Crop of Berar of 1892-93; on the Wheat crop of the season ending 31st March, 1893; on the winter Oil-seeds Crop of 1892-93, Wheat Crop of 1892-93; and on the Linseed Crop of Berar from Government of India, Revenue and Agricultural Department.

Memoranda from the Department of Land Records and Agriculture, Bengal. On the Oil seed Crops of 1892-93 in Bengal; on the outturn of the harvests of food-grains in the year 1892-93 and on prices and stocks of food-grains at the end of the year; and on final forecast of the jute crop in Bengal for season 1893.

Memoranda from the Department of Land Records and Agriculture, Central Provinces, on Final Report on the Wheat Crop of the season 1893 and on the Linseed Crop of the season 1893.

Memoranda from the Department of Land Records and Agriculture, N. W. P. and Oudh on final forecast of the Rape and Linseed Crop for 1892-93 and of the Wheat crop 1892-93.

Memoranda from the Department of Land Records and Agriculture, Bombay, on the Linseed and Rape seed crops for 1892-93; and Wheat Crop for the season 1892-93.

Memoranda from the Department of Land Records and Agriculture, Punjab, on Wheat crop for the year 1892-93 and Rape seed crop 1892-93.

The following contributions were made to the gardens during the month :—

Seed of Abroma angusta and 6 varieties of Achimenes plants from Mr. Cameron, Superintendent, Lal Bagh, Bangalore.

Seed of Garcinia cowa from Mr. G M. Woodrow, Poona.

Plants of Aerides Sp. and Pholidota imbricata from Mrs. Munro Peermade.

Seed of Bassia latifolia from the District Forest Officer, Ganjam.

Seeds collected.—The following seeds were collected in the gardens for distribution to Members and Botanic Gardens :—

Aleurites triloba,
Guaiacum officinale,
Walsura piscidia,
Adenanthera pavonina.
Garuga pinnata,
Capparis spinosa,
Sabal Adansonii,
Ficus religiosa.

Plants from Calcutta.—Read letter from the Secretary Agricultural and Horticultural Society of India, dated Calcutta, 10th July, 1893, forwarding 2 cases of the undermentioned plants :—

Aglaia odorata,
Allamanda violacea,
Brownea grandiceps,
Combretum comosum,
Do. grandiflora,
Elæocarpus prinoides,
Eranthemum versicolor,
Do. marmoratum,
Do. esmeralda,
Do. nobile,
Do. Moorii,
Do. sp.
Eranthemum tricolor,
Do. pulchellum,
Do. bicolor,
Do. crenulatum,
Gardenia Fortuniana,
Ixora Prince of Orange,
Mesua ferrea,
Murucuja ocellata,
Nandina domestica,
Nipa fruticans,
Pardanthus chinensis,
Phyllarthron Bojerianum.

Seeds.—Flower and Vegetable seeds were received during June 1893, for Subscribers and for sale from Messrs. Vilmorin Andrieux & Co., and Sutton and Sons, respectively. The seeds have as usual been tested by trial sowings by Mr. Gleeson, the Superintendent, and found good.

Committee Member.—Read letter from the Hon'ble Mr. J. Grose, dated Nungumbakum, 26th July 1893, accepting with much pleasure the invitation of the Committee to join them and to take the seat vacated by Mr. Rawlins.

Recorded.

The following contributions were made to the Library during the month of August, 1893 :—

Loudon's Flower Garden, in 4 Vols. from Colonel H. W. H. Cox, Madras.

Proceedings of the Royal Colonial Institute, Vol. XXIV for 1892-93.

Improvement of Indian Agriculture by J. A. Voeleker, 1893.

Proceedings of the Agricultural and Horticultural Society of India for April to June, 1893.

Watts Dictionary of the Economic Products of India Vol. VI.—Part III., 1893.

Kew Bulletin of Miscellaneous Information for April and May, June and July, 1893.

The Indian Forester Vol. XIX, No. 7, for July, 1893.

L'Illustration Horticole No. 7, Vol. VII, 1893.

Memoirs of the Geological Survey of India, (Palæontologia indica) Series IX, Vol. II.—Part I.

The Tropical Agriculturist for August 1893, No. 2, of Vol. XIII.

Bulletin van het Koloniaal Museum te Haarlem, June 1893.

Proceedings of the Government of Madras, No. 347, dated 28th April 1893, about Quinine Packets.

Proceeding of the Government of Madras No. 653 dated 19th July 1893 about English Potatoes.

Proceedings of the Madras Government, No. 579, dated 1st July 1893, about second dry crop.

Bulletin of University of California, No. 102, about analysis of figs and fig soil.

Report of the Botanic Gardens, Trinidad for 1892.

Report of the Government, Agri-Horticultural Gardens, Lahore, for 1892-93.

Memoranda about early Gingelly crop and Cotton crop from the Department of Land Records and Agriculture, Madras.

The following contributions were made to the Gardens :—

A Persian bulb (name not known) from W. Strachan, Esq., Karachi.

Two plants of Vogel's African Rubber (Urostigma Dogelii) from J. T. Ferguson, Esq., Calicut.

Seventy-five packets of Australian tree and shrub seeds including Acacia and Eucalyptus seed from the Director, Botanic Gardens, Adelaide.

Sixteen varieties of Achimenes from the Secretary, Agricultural and Horticultural Society of India, Calcutta.

A packet of seed of 'Tagasaste' Cytisus proliferus from the Director, Botanic Gardens, Adelaide.

The undermentioned plants were received in a Wardian case from the Superintendent, Agri-Horticultural Society's Gardens, Rangoon.

12	Amherstia nobilis.	1	Hibiscus zebrina.
1	Centrosolenia vittata.	1	,, magnificus.
4	Durio zebethinus.	1	Monstera deliciosa.
2	Fourcroya gigantea.	3	Pierardia sapida.

Chrysanthemum culture in Madras.—Read letter from J. L. Walker, Esq., dated Spring gardens, 10th August, 1893, forwarding the following report about Chrysanthemum culture in Madras:—

"The rain we have recently had, has made all gardeners rejoice. This month our gardening books tell us, if the weather is propitious, we should commence sowing seeds of both flowers and vegetables and taking cuttings of Chrysanthemum, layering Verbenas, &c., &c. The little book on gardening which I have always by me, is entitled "Practical hints on Flower gardening in Madras" by F. H. L. and is published by Messrs Higginbotham and Co. But, as I said, it is a little book and hence all I find about Chrysanthemums is contained in the following paragraph taken from "Jaffrey's Hints to amateur Gardeners in Southern India" August:—Flower Garden:—"Increase your stock of Chrysanthemums by division or fresh supplies." In Madras, speaking generally, the method of cultivation of Chrysanthemums seems to be but little understood, and indeed no one has, so far as I am aware, ever seen in Madras any blooms at all approaching in size and beauty those exhibited at home. In England, it is natural, that Chrysanthemums should attract a large share of the attention of Florists, seeing that they are brought to perfection when the garden is bare of flowers, and also on account of the long time a cut bloom will last in water, but in Madras the Chrysanthemum has many

rivals. In England as a rule, the cuttings are started from the middle of December to the end of January and these cuttings do not grow into full sized plants and produce blooms to perfection till early in the following November. In Madras one may start cuttings in November, and hope to have the plants in full bloom in January and February. I see that I have the following notes in my gardening Diary : —

12th November 1888, Bangalore Chrysanthemums put in flat pots.

November 18 C 30 Bangalore Chrysanthemums put in small pots, *i.e.*, 3½ inches pots.

1st January 1889, Repotted Chrysanthemums (*i.e.*, 5½ inches pots.) 18th some 6 Chrysanthemums flowering.

23rd February, Showed 70 pots, some 35/40 varieties, First Prize.

Now for a few practical hints.

Propagation—Chrysanthemums may be propagated from :—

(1) Seeds. (2) Leaves. (3) Suckers. (4) Cuttings.

Supposing one has some old plants of Chrysanthemum which have survived the hot weather, the best method for one to adopt is to take cuttings. These should be selected as far from the stems as possible, about 3 inches long and stiff and sturdy. The cuttings should be cut square below a joint with a sharp knife. Stem cuttings should not be used. The cuttings should be placed singly in pots known as 'deep thumbs' at home, *i.e.*, pots about 2½ inches in diameter. Place one crock in each pot for drainage, fill the pot firmly with soil, the best for the purpose being composed of about equal parts of leaf mould and loam, with a free use of coarse silver sand thoroughly mixed.

The compost should be moist but not wet. When these pots are filled with roots transfer the cuttings into pots, of say 3½ inches diameter, thence into pots of 5½ inches diameter and finally into pots of from 8½ to 9½ inches diameter.

Rooted suckers will give flowers sooner than cuttings, but the general consensus of opinion at home is in favour of cuttings. Pot with increasing firmness each time. These directions

follow pretty closely the method in vogue in England, but it is possible that in Madras it might be better to start the cuttings in pots of $3\frac{1}{2}$ inches diameter instead of in the $2\frac{1}{2}$ inches pots.

Flowers—Three is the usual number to grow on each plant and with most varieties the plant will produce three flowers of as fine a quality as one.

The buds are either "crown" buds, *i.e.*, buds that show themselves surrounded by shoots or "terminal" buds *i.e.*, central buds surrounded by other buds. On each plant three shoots should be left, select strong ones if there be any choice.

All other lateral shoots and all root suckers must from this time be carefully removed as they appear. The necessity for this removal of laterals continues until the flowers are out and over. With but few exceptions "Crown" buds should be allowed to flower in preference to "terminal" buds. I give a list of Japanese and Incurved Chrysanthemums which were selected for me by Messrs H. Cannell and Sons, Swanley, Kent, one of the best growers in England.

The plants were imported in November 1892 and took the First Prize for Chrysanthemums at the Madras Agri-Horticultural Society's Show in February last.

Japanese.

Name.	Colour.
Edwin Molyneux	Chestnut crimson, reverse golden.
W. H. Lincoln	Pure yellow.
Annie Clibran	Rose pink.
Mrs. A. H. Neve	Silvery blush.
Charlie Sharman	Deep magenta.
M. E. A. Carriere	Creamy white.
Mons Bernard	Bright purple violet.
Miss A. Hartshorn	Pearl colour.
W. W. Coles	Bright red.
Kate Marsell	Primrose.
Stanstead White	Purest white.
Mr. E. W. Clarke	Amaranth purple.
Lady Lawrence	Pure white.
Wm., Tricker	Delicate rose.
Mrs. C. W. Wheeler	Orange brown.
Jeanne Delaux	Dark velvety brown.
Martha Harding	Orange yellow tinged crimson red.
Beauty of Castle Hill	Golden yellow reverse salmon rose.
Mrs. G. C. Schwabe	Delicate rose shaded salmon.
Etoile de Lyon	Deep lilac rose shaded silver.

Incurved.

Name.	Colour.
I. Doughty	Bronze.
Mr. Bunn	Golden yellow.
Robert Cannell	Bronze red.
Venus	Lilac suffused with peach.
Refulgens	Bright purple maroon.
Prince of Wales	Purple.
Lord Alcester	Pale primrose.
Lord Wolseley	Bronzy red.
H. Shoesmith	Bronze.
Golden Queen of England	Canary yellow.
Golden Empress of India	Pale yellow.
Alfred Salter	Lilac pink.
Empress of India	Pure white.
Emily Dale	Pale straw.
Hero of Stoke Newington	Rosy pink.
Mrs. Winthorp Sargeant	Brilliant straw color.
Charles Gibson	Bronze.
Mr. Cobay	Bronzy red.
Queen of England	Fine blush.
Ami Hoste	Dark buff yellow striped and shaded violet carmine.

There seems to be some little difficulty about getting named varieties from the Florists in Southern India. Baboo S. P. Chatterjee, Victoria Nursery, 8½ Hastings' Street, Calcutta, advertises in his Catalogue a good selection of over a hundred named varieties of Chrysanthemums priced from 8 annas to 1 rupee. But even starting with a collection of some 20 pots or so such as may be seen in so many compounds in Madras, one can by care and attention ensure a fair show of flowers though possibly scarcely good enough to show in February. For much of the information I have given I am indebted to the following works:—

"Chrysanthemums and their Culture" by E. Molyneux "The Chrysanthemum and its growth," W. and G. Drover, and the Catalogue of F. J. Jones which contains an excellent article on "Chrysanthemums and how to grow them" by C. E. Shea.

Recorded with many thanks.

The Members of the Committee resolve to order the removal of the Guatteria longifolia tree near the office, and the second and fourth of the same in the row in front of the Palm House and six others in the same line further on.

Plants to Port Blair.—During the month a Wardian case containing the undermentioned plants were forwarded to Mr. H. Man per S.S. 'Shajehan' which sailed on the 28th August 1893 :—

6 Oreodoxa regia.
2 Plumiera alba.
1 Solanum arboreum.
1 Ixora rosea.
1 Aristolochia labiosa.
2 Hibiscus sp. (seedling vars.)
2 White flowered Compositæ from Natal.
1 Spathodea crispa.
1 Canella alba.
1 Hibiscus sp. variegated.
1 Do. violacea,
1 Do. schizopetalus grandiflorus.
1 Do. sp. double white.
1 Brunfelsia americana.
2 Lagerstrœmia flos-reginæ.
2 Musa superba.

Committee Member.—Read letter from Dr. D. Duncan, dated Nungumbakum, 7th August, 1893, resigning his seat on the Committee on account of his departure to Europe.

Resolved that Mr. W. F. Emery be invited to join the Committee.

Accounts for July and August read and passed.

J. GROSE,
Chairman.

H. W. H. COX,
Hony. Secretary.

Proceedings of the Agri-Horticultural Society of Madras for September held on Monday, the 2nd October, 1893.

PRESENT:

A. T. Arundel, Esq., *in the Chair.*

C. W. Conington, Esq. | J. L. Walker, Esq.

Colonel H. W. H. Cox, *Hony. Secretary.*

Kew Bulletin of Miscellaneous Information for August 1893, No. 80.

Bulletin of the Botanical Department, Jamaica, Nos. 43 and 44.

Journal of the Royal Horticultural Society, August 1893, Vol. XVI. part I.

Report of the Government Horticultural Gardens, Lucknow, for the year ending 31st March, 1893.

Report on the progress and condition of the Government Botanical Gardens, Saharanpur and Mussoorie for the year ending 31st March, 1893.

Annual Report of the Department of Land Records, Bengal, on Settlement for the year ending 30th September, 1892.

L'Illustration Horticole, Vol. VII No. 8.

Revue Agricole 7me Annee, No. 1, 1893.

Bulletin of the Department of Agriculture, Brisbane, No. 23 on Sericulture and No. 24 on our stock foods and how to use them.

A Companion for the Queensland Student of Plant life, by F.M. Bailey, F.L.S., &c., 1893.

Proceedings of the Madras Government, No. 703, dated 1st August 1893, about Manure, Milch Cattle, &c. of Agriculturists.

Proceedings of the Madras Government, No. 721, dated 14th August 1893, about sale of Government Quinine.

A pamphlet about Vanilla, its origin and culture, by A. D'J. Achart.

Report on Experimental Cultivation in Southern Shan States, for the year 1892-93.

Memoranda on the prospects of the Sesamum crop of the season 1893, dated Simla, the 26th August, 1893; Indian Cotton crop of the season 1893, dated Simla, 25th August, 1893; Coffee crop in Coorg, dated Simla, 30th August, 1893; Sesamum crop of the Central Provinces, dated Nagpur, 14th August, 1893; Cotton forecast of the Central Provinces, dated Nagpur, 15th August, 1893; First forecast of the N. W. P. and Oudh, for 1893, dated Lucknow, 22nd July; Sesamum crop of the Punjab, for 1893; Cotton crop of the Punjab, for 1893; Indigo crop of the Punjab dated Lahore, 16th August, 1893.

Wholesale price list of Oosman and Co., Seedsmen, &c., London, E.

Sutton's Farmers' Year-Book and Graziers' Manual for 1893; "Cabbage as a field crop" and "the Suttons of Reading by J. C. Morton."

The following contributions were made to the gardens:—

8 oz. of Tea seed from Thomas Stanes, Esq., Coonoor.

One box of seed of Albizzia moluccana from the Director, Botanic Gardens, Java.

Three packets each of Swietenia Mahogani and Phœnix paludosa from the Superintendent, Government Gardens, Calcutta.

A small deal-wood box containing 16 plants of sorts from J. Beck, Esq., Morvi, Kattywar.

Seeds of the undermentioned from Messrs. Damman & Co., Naples, Italy :—

Amaranthus superbus.	Yucca recurva pendula.
Tecoma excelsa.	Mina lobata.
Alpinia cærulea.	Cassia floribunda.
Martynia fragrans.	Clitoria floribunda.
Schinus Molle.	Yucca quadricolor.

Tagasaste-(Cytisus proliferus).—Seed of this fodder plant, received from the Director Botanic Gardens, Adelaide, in August last, was distributed to the undermentioned gentlemen and gardens for trial and report, with the exception of a small quantity sown in the gardens.

Mr. W. Hamilton Holmes, Madras.
Revd. G. Richter, Coorg.
Mr. A. Parsons, Superintendent Govt. Gardens, Simla.
The Superintendent, Durbungah Gardens.
The Hony. Secretary, Cossipore Gardens.
The Agri-Horticultural Society, Nagpur.

Polyalthia trees removed.—According to the Resolution of the Committee Members passed at their meeting held on the 4th September, 1893, nine large Asoga (Polyalthia longifolia) trees were removed.

Addition to garden library.—Read letter dated 27th September, 1893 from Mr. Gleeson, Superintendent, to the Hony. Secretary, recommending the purchase of a second-hand copy for Rs. 35, of C. Nicholson's Dictionary of Gardening and Horticulture, in 4 vols, as the work will, if purchased, be instrumental in introducing many annuals not before known in our gardens, in that case well worth the outlay.—Further information will be procured regarding the Book.

Financial statement for September and July to September 1893 read and passed.

A. T. ARUNDEL, *Chairman.*
H. W. H. COX, *Hony. Secretary.*

Financial Statement for July to September 1893.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co, on 30th June, 1893.	1,986	...	...				Establishment for July 1893 ...	283	15	3			
							Other expenses for July 1893 ...	784	14	6			
Do. Cash receipt book on 30th June, 1893 ...	16	10	...								1,068	13	9
							Establishment for Augt., 1893 ...	284	11	5			
Do. do. expense book on 30th June, 1893 ..	23	6	4				Other expenses for Augt., 1893...	817	12	7			
											1,102	8	...
				2,026	...	4	Establishment for Sept., 1893 ...	284	1	6			
							Other expenses for Sept., 1893...	553	7	8			
											837	9	2
By sale Subscriptions, &c., for July, 1893.	920	10	...				Balance with Messrs. Binny & Co., on 30th Sept., 1893 ...	1,403	...	7			
Do. do. August, 1893 ...	684	15	...				Do. in hand as per receipt book on 30th Sept., 1893.	91	8	...			
Do. do. September 1893.	903	7	...				Do. as per expense book on 30th Sept., 1893	31	8	10			
				2,509	...	...					1,526	1	5
Total Rupees ...	...	...	...	4,535	...	4	Total Rupees ...	...	...	...	4,535	...	4

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras for October and November, 1893, held at the Gardens on 4th December, 1893.

PRESENT.

Colonel G. M. J. Moore, C.I.E.
Hon. Mr. J. Grose.
D. A. J. Crombie, Esq.
Hon. Mr. A. T. Arundel.
J. L. Walker, Esq.
Hon. Mr. H. F. Clogstoun, C.S.I.
Reddy Branson, Esq.
C. W. Conington, Esq.

October, 1893.

Bulletin of Miscellaneous information of the Royal Botanic Gardens, Trinidad No. 17-1892 containing a classified list of the plants in the gardens.

Tropical Agriculturist No. 1 of Vol. XII.

Bulletin of the Botanical Department, Jamaica, No. 45, July, 1893.

Indian Forester Vol. XIX No. 10 of 1893.

Records of the Geological Survey of India Vol. XXVI, part 3, 1893.

Kew Bulletin of Miscellaneous Information No. 81, 1893 containing Flora of St. Vincent and adjacent Islets.

Report on the Botanic Gardens, British Guiana, and their work for the year 1891-92.

Annual Report of the Khandesh Experimental Farm for the year ending 31st March, 1893.

Agricultural statistics of the Lower Provinces of Bengal for 1892-93.

Proceedings of the Madras Government Nos. 802 and 802 a. dated 11th September 1893, on Mule Breeding.

Proceedings of the Madras Government Nos. 756, 756 a. dated 24th August 1893, on Civil Veterinary Department.

Hand-books of Commercial Products of the Imperial Institute series.

No. 1. Padauk wood.
,, 2. Ipecacuanha.
,, 3. Podophyllum emodi
,, 4. Sida fibre.
,, 5. Jute.
,, 6. Al. (Morinda) dye and dyeing.
,, 7. Resin and Turpentine from Indian Pines.
,, 8. Iron.
,, 9. Indian Coal.
,, 10. Adhatoda vasica.
,, 11. Lin-seed.
No. 12. Fibres used for brush-making.
,, 13. Cutch.
,, 15. Turpeth or Indian Jalap.
,, 16. Kamela Dye.
,, 18. Jalap.
,, 19. Mica.
,, 20. Castor Oil.
,, 21. Sesamum Oil.
,, 22. East Indian Walnut.
,, 25. India Rubber.
,, 29. Chaumugra Oil.
,, 1. Guide to collections of 1892.

Agricultural Ledger series of 1893 : No. 13, Usar soils ; No. 5, Vine plant disease ; No. 6, Foods for human use, No. 7, Vine cultivation ; No. 8, Hill Potatoes; No. 9, Tassar silk production in the central provinces; No. 10 Saltpetre as manure ; No. 11, The soil-inverting plough ; No. 12, Reclamation of Usar land by manuring and deep cultivation ; No. 1, Fertilization of land by silt deposit from canals and streams ; No. 2, Dried locusts as food for insectivorous cage and game birds ; No. 3, Agave americana as an article of food, and No. 4 Potato disease.

Proceedings of the Agri-Horticultural Society, Tenasserim, held on 16th September, 1893.

Koloniaal Museum Notes No. IV Petroleum, and Revue des Sciences Naturelles Appliquées, &c., &c.,La Muséé Colonial de Harlem, No. 16, 1893.

Memoranda on First Forecast of the Bhadoi crops in Bengal 1893 ; Report on Second sowings of cotton 1893 ; Summary of the District returns of the First Forecast of the Winter Rice crops in Bengal, 1893, Report on Paddy sowings 1893, and on late Cotton crop of Gujarat, &c., dated 14th October, 1893.

The following contributions were made to the Gardens :—

Eighty Anona cherimolia seeds from J. T. Ferguson, Esq, Calicut.

Two kinds of Bengal gram seed (Tippu Tip and Res Allula) from the Agri-Horticultural Society of India, Calcutta.

Three packets of Phœnix paludosa seed from the Superintendent, Royal Botanic Gardens, Calcutta.

Malabar Coast Ferns from Mrs. Munro, Peermade.

Committee Member.—Read letter from Mr. F. W. Emery dated Madras, 4th October, 1893, accepting with much pleasure the invitation of the Committee to join them and to take up the seat vacated by Dr. D. Duncan.

Recorded.

Euryale ferox.—Application was made to the Royal Botanic Gardens, Calcutta, for seed of Euryale ferox, an aquatic with leaves only second to the Victoria regia in size, and worth introducing to the Madras Gardens.

The Superintendent of the Royal Botanic Gardens, Calcutta says in his letter, dated 16th October, 1893, that he has registered our name for a supply of the seed next year, as he has none in stock at present.

Andaman Plants.—Read letter from E. H. Mann, Esq., dated Port Blair, 13th October, 1893, forwarding a Wardian case containing the undermentioned plants through Messrs. Wilson & Co., Madras:—

48 Ptychoraphis augusta.
12 Pandanus Mellori.
12 Caryota sobolifera.
24 Areca laxa.
6 Karthalsia (? Calamosagus) scaphigera.
12 Ptychosperma Kublii.
12 Calamus Rotang.
12 Phœnix sp.
6 Licuala peltata.
12 Cycas Rumphü.
12 Pterocarpus dalbergioides.
12 Orania Bentinckia.

The plants were received in good order.

Plants from Calcutta.—Read letter from the Secretary, Agricultural and Horticultural Society of India, dated Calcutta, 3rd October, 1893, forwarding 3 cases of plants per S. S. "Loodiana":—

1 Aglaia odorata.
1 Allamanda violacea.
1 Bauhinia megalandra.
1 Brownea grandiceps.
1 Combretum comosum.
1 Do macrophylla.
1 Elæocarpus (julpue).
6 Eranthemums of sorts.
1 Gardenia Fortuniana.
1 Ixora sp. (Prince of Orange).
10 Mesua ferrea.
1 Murucuja ocellata.
1 Nandina domestica.
1 Nipa fruticans.
1 Pardanthus chinensis.
1 Phyllarthron Bojerianum.

The plants were received in good order except Elæocarpus sp.

Wire trellis.—It having been found that the Bamboo trellis work around the two ferneries had to be renewed every fourth year at a cost of generally Rs. 80, sanction was given to Mr. Gleeson's proposal to use wire on which to train the climbers. This has been done at a cost of Rs. 29-12-0 for the two fern houses: it looks neat, is free from the ravages of white ants, and will last for years.

Beetles.—During the last 3 months some 16 rhinoceros beetles (Oryctes Rhinoceros) have been found on the palms planted last season. These beetles are very destructive and if not secured at once, soon bore into the centre of the palm, almost invariably destroying the plant. The early morning is the best time for catching the beetles.

Water channels for Nursery.—Since the laying down of the iron pipes to supply the seed-testing department, it has been considered advisable to extend the supply to the Nursery by means of a raised channel and tiles. The cost of the channel, tiles and cistern was Rs. 18.

Seeds to Chepauk.—Read letter from the Board of Revenue dated 23rd Instant forwarding a copy of the Consulting Engineer's letter No. 2167 of 17th Instant, asking for seeds of trees, &c for trial in Chepauk and Guindy Gardens.

Resolved that the Superintendent of the Society be instructed to assist with seeds of new or foreign plants as they become available for distribution.

Nicholson's Dictionary.—In accordance with the resolution passed at last meeting enquiries were made about Nicholson's Dictionary of gardening and as a very favourable review of the book was found in the Gardeners' Chronicle, the Honorary Secretary resolved to secure Mr. Woodrow's copy in anticipation of the sanction of the committee.

The work will be a valuable and practically useful addition to the Society's Library but if the Committee consider it inadvisable to incur the expense involved by its purchase there will be no difficulty about disposing of the book without loss to the Society.

Sanctioned.

Ficus Tsiela.—The President of the Municipality directed the attention of the Honorary Secretary to the curious growths on the Ficus Tsiela, common on some of the avenue trees of Madras, resembling parasitic growths and apparently as injurious to the health of the trees as true parasites would be.

Specimens of the plant, with sections of stem which shew conclusively that these growths are not parasitic, were laid on the table. Dr. George King in his species of Ficus of India, vol 1. p. 60, mentions F. Tsiela as being subject to sport in

this manner, and in Hooker's Flora of British India vol. v. p. 515, under F. Tsiela he says " a sport is common in Madras with tufts of very long petioled leaves at the end of the branches."

There appears to be no remedy and no way of preventing these growths, which are at once unsightly and injurious.

Recorded.

The following is a list of plants available for Members :—

Livistona rotunda.
Oreodoxa regia.
Poinsettia pulcherrima.
Bambusa siamensis.
Corypha alata.
Brunfelsia americana.
Ptychoraphis McArthurii.

Financial Statement for October 1893.

Read and passed.

November 1893.

The following contributions were made to the library during the month :—

Bulletin of the Department of Agriculture, Brisbane, Nos. 1, 13, 18, and 20.

Hooker's Flora of British India part XIX, 1893.

Proceedings and Journal of the Agricultural and Horticultural Society of India for July to September 1893.

Hand-Books of Commercial products (Imperial Institute series) No. 28, Salep ; No. 27, Soapstone ; and No. 24, Ground-nut.

Bulletin of the Botanical Department, Jamaica, No. 46 August 1893.

Tropical Agriculturist, vol. XIII, No. 4, October 1893.

Report on the Government Agri-Horticultural Gardens, Lahore, for 1892-93.

L'Illustration Horticole No. 5 of vol. V, 1891, and No. 9 of vol. VII, 1893.

Annual Report of the Gardens of H. H. the Maharajah of Oodeypore for 1892-93.

Plantes Vivantes, offertes en échange aux jardins botaniques, Paris, 1893.

Revue Agricole No. 3 October, 1893.

Proceedings of the Madras Government, dated 14th September, 1893, No. 821 on Phosphatic nodules and No. 4,098 dated 11th November, 1893 on the supply of future issues of Hooker's Flora of British India.

Report on Liberian Coffee cultivation in Tavoy, by the Director of Agriculture, Burma 1893.

Memoranda on the prospects of cotton crop in Berar dated Simla, 17th October 1893 ; First general memorandum on Rice crop in Bengal dated Simla, 26th October 1893 ; Indian Cotton crop of the season 1893, dated Simla, 23rd October 1893 ; Sesamum crop dated Simla, 20th October 1893 ; Second general Memorandum on Sesamum crop dated Simla 8th November 1893 ; Rice crop prospects dated Rangoon 11th October 1893 ; forecast of cotton crop dated Lahore, 16th October 1893 ; forecast of Indigo crop dated Lahore, 16th October 1893 ; forecast of cotton crop, dated Lahore, 16th October 1893 ; forecast of Sesamum crop dated Lahore, 16th October 1893 ; early sowings of Gingelly seed and first sowings of cotton dated Madras, 15th October 1893 ; early Gingelly crop of Madras, dated 3rd November 1893 ; Sesamum crop for the season 1893-94 dated Poona 20th October, 1893 ; Cotton crop of N. W. P. and Oudh ; Til crop of the N. W. P. and Oudh, dated Lucknow, 14th October, 1893 ; Indigo crop dated Lucknow, 12th October 1893 ; Til crop, dated Pachmarhi 12th October 1893 ; and on Cotton crop dated 12th October 1893 ; and Jute crop for the season 1893 dated Calcutta, 31st August 1893.

Wholesale seed list of Messrs. Vilmorin Andrieux and Co., for 1893.

Price list of new, rare and beautiful plants of the Russapugla Nursery.

Graines offertes en échange &c. par les jardins de Pondicherry, 1893-94.

Illustrated catalogue of Articles manufactured at the Basel Mission Tile works in South Canara and Malabar 1893.

Prospekt Pflanzenbiologische Schilderungen von Dor. K. Goebel.

The following contributions were made to the Gardens during the month :—

One packet of seed of Bauhinia Hookerii from Mr. J. Cameron, Bangalore, and also seed of Ipomæa bona-nox.

Seed of Bambusa siamensis from the Supdt. Royal Botanic Gardens, Calcutta.

Twenty eight ounces of Poppy seed from Mr. C. Maries, Gwalior.

Cuttings of Spondias dulcis from Mr. A. Jaganada Pillay, Pondicherry.

One packet of Asparagus plumosus seed from Mr. T. J. Ferguson, Calicut.

One packet of 'Peperoli' seed from D. E W. Leighton, Esq., Egmore.

Tagasaste (Cytisus proliferus.)—By request of one of our members we procured in September last a small supply of seed of Cytisus proliferus from the Botanic Gardens, Adelaide. We put down some ourselves and distributed the remainder to widely separated gardens in India, but it was a failure in all places except Bangalore, where a few seeds germinated. There does not seem much chance of its success here, owing to our climate being too hot and dry for it.

Mr. Hamilton Holmes in his letter, dated 28th October 1893, states that only 2 seeds germinated and the young plants died down after about 10 days.

The Superintendent, Government Experimental Farms, Nagpur, under date 31st October 1893, reports that he put down two separate sowings of Tagasaste but none germinated.

The Superintendent, Annandale Garden, Simla, in his letter of the 2nd November 1893, states that the seed of Tagasaste which was sown there on the 23rd August last has not yet germinated.

The Honorary Secretary, Cassipore Practical Institute, states under date 2nd November 1893, that the seed failed to germinate there.

Mr. J. H. Stephen, the Curator of the Lal Bagh, Bangalore, writes as follows in his letter of the 30th October, 1893.

"The seeds received from you were sown in a seed pan, and seven seedlings have come up. They are from one inch to inch and a half and look strong and healthy. As soon as ready they will be planted out."

Recorded.

Cyclone.—The cyclone which passed over the gardens on the morning of the 6th November, 1893, was of a milder type than usual. We were not directly in the path of the storm and so escaped its intensity ; still many of our trees suffered disfigurement as noted below :—

Melaleuca cajeputi
Bignonia megapotamica
Broussonetia papyrifera
Spathelia simplex
Araucaria Cunninghamii
Stereospermum chelonoides
Cordia tectonæfolia
Sterculia fœtida
Manihot Glaziovii
Bauhinia racemosa
Ailantus excelsa
Parkia biglandulosa
Wrightia antidysenterica
Polyalthia longifolia
Schliechera trijuga
Givotia rottleriformis
Nauclea parviflora
Citharexylon subserratum
Pterocarpus marsupium
do indicus
Brassaia actinophylla
Albizzia Lebbek
Bambusa arundinacea
Psidium guyava
Cæsalpinia Sappan

List of trees uprooted :

TERMINALIA MELANOCARPA.—An introduction from Australia, planted about seven years ago and which had attained a height of 27 feet.

PROTIUM CAUDATUM.—An old inhabitant of the Gardens.

BIGNONIA SUBEROSA.—Indian cork-tree : quick-growing trees, with pleasant foliage and sweet scented white flowers ; do not root deeply and in consequence suffer in each Cyclone.

SPONDIAS MANGIFERA.—Hog Plum.

SPATHODEA CAMPANULATA. Was blown down in 1888, but was trimmed and put up again ; now finally blown down. A quick-growing tree ; when in flower a grand addition to the Gardens.

The following particulars are taken from the *Madras Mail* news paper of the 15th November, 1893.

THE RAINFALL IN MADRAS.—The total quantity of rain collected at the Observatory since January 1st to the 12th instant was 37·13 inches, the average due for the same period being 36·10 inches. On the morning of the 6th a moderate cyclone passed with its centre a little to the south of Madras. The lowest reading of the barometer (reduced) was 29·721 inches at 8-30 A. M. The greatest amount of wind recorded in an hour was 34 miles from 8 to 9 A. M. M M 15-11-93

Rain Gauge.—Resolved that a rain guage be procured, cost &c., to be reported at next Committee meeting.

Rain-tree Growth.—Read letter from Mr. A. T. Arundel, dated Adyar, 9th November, 1893, giving the following particulars of the growth of Rain-tree :—

"I bought a number of plants at the Gardens just about a year ago. Of these only two which were planted in the open road-way in front of my house have made any remarkable growth. I clipped them both about March and one of them threw out four branches and the other two.

In the cyclone on Sunday I feared both trees would be destroyed and proceeded to clip the ends off all the branches. Unfortunately two branches of the four-branched tree broke off. One of these was 10 feet 6 inches long and 4¾ inches round at its base. The four stems branched out at a height of 7 feet 10 inches from the ground. The main trunk is 6¾ inches in circumference at 3 feet from the ground. The highest branch stood over 13 feet above the ground. These figures show an extraordinarily rapid growth. None of the other plants have made anything like the same growth. The poorest is only 3 feet 6 inches high with a stem much thinner than my little finger. It has grown only about 2 feet or less in the year. I know of no reason for the rapid growth of the two trees in front of the house unless it be the absence of grass anywhere near them to absorb the moisture and the fact that the pots grouped round them may have kept the roots cool and damp.

Recorded.

Bambusa siamensis.—Seed of this plant were received from the Agri-Horticultural Society of India and the Royal Botanic Gardens, Calcutta and distributed to various gardens in India and to Mr. E. W. Hilgard, Director of Agricultural Experimental Farm, Berkeley, California U. S. A.

Dr. G. King in answer to the Superintendent's query as to what size the Bamboo grew &c., he replied as follows:—

"Bambusa siamensis when full grown attains a height of about 15 ft. It is a very feathery, beautiful species and one of the most graceful known to me."

We sowed some of the seed in our gardens and have now a nice lot of young seedlings to distribute to members who may wish to try them.

Recorded.

During the month the undermentioned trees and shrubs were planted out in the gardens:—

Scarlet Hibiscus of sorts.
Yellow Hibiscus of sorts.
White Hibiscus and other kinds.
Bambusa siamensis.
Phyllarthron comorense.
Mesua ferrea.
Brownea grandiceps
Bougainvellea sp. from Mr. Bliss
Lagetta lintearea.
Solanum arboreum.
Callistemon lancelolatum.
Dillenia indica.
Noronhia emarginata.
Natal Composite.
Canella alba.
Bauhinia candida.
Rondeletia speciosa.
Cordia sebestena.
Plumeria sp.
Xylophylla angustifolia.
Cassia multijuga.
Michelia champaca.
Ravenala madagascariensis.
Aglaia odorata.
Hæmatoxylon campechianum.
Quassia amara.
Tamarix indica.
Sophora sp. (yellow)
Allamanda violacea.
Kopsia fruticosa.
Corypha sp. (Ceylon)
Thrinax argentea.
Perennial Ipomæa.
Caryota urens.
Pandanus Mellori.

Gardener engaged.—At the request of Mr. J. Rice, Resident Engineer, S. I. R., Trichinopoly, Rungasawmy Naidoo, a Head Gardener was engaged sent on the 1st November 1893.

Financial statement for October 1893. Read and passed.

J. GROSE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society, Madras for December, held on Monday the 8th January, 1894.

PRESENT.

Hon'ble Mr. Arundel, in the chair.

Mr. D. A. J. Crombie.
„ J. L. Walker.
Mr. A. Thanokoti Mudeliar.
Col. H. W. H. Cox,
(*Hony. Secretary.*)

December, 1893.

Report on the Nagpur Experimental Farm in the Central Provinces for the year 1892-93 ending 31st March, 1893.

Report on Sugar-Planting in Queensland, Brisbane, 1893.

Bulletins of the Department of Agriculture, Brisbane, No. 25, June, '93 and No. 1 second series September 1893.

Proceedings of the Madras Government, dated 10th November, 1893, Nos. 966 & 966*a*, reviewing reports on Pony-breeding operations and Nos. 934, & 934*a*, dated 25th October, reviewing the report on the operations of the Department of Land Records and Agriculture, Madras.

Appendix 1. for Kew Bulletin of Miscellaneous Information 1894.

Tropical Agriculturist vol XIII No. 6, December, 1893.

Report on the Department of Land Records and Agriculture, Burma, for the year 1892-93.

Revue Agricole No. 4, November, 1893.

Bulletin of the Botanical Department, Jamaica, No. 48, dated October 1893.

Memoranda on First forecast of out-turn of the Cotton crop of 1893; Paddy crop of 1893-94 and Indigo crop of 1893-94 dated Madras, 9th, 15th and 14th December, 1893, respectively.

Memoranda on the first forecast of the Rape and Linseed crop for 1893-94 and Cotton crop for 1893, dated Lucknow, 20th and 9th December, respectively.

Memoranda on Rice-crop prospects for 1893-94 dated Rangoon, 11th November and 11th December.

Memoranda on Final report on the Winter Rice crop of Bengal, 1893; early Cotton crop for 1893 and Final Report on the Bhadoi crops for 1893, dated Calcutta, 6th, 8th and 7th December, 1893 respectively.

Memoranda on Cotton crop for the season 1893-94; Cotton crop in Berar; Rice crop of 1893; Wheat crop in Berar; Linseed crop in Berar; and Mustard crop in Assam, dated Calcutta, 22nd, 19th, 20th, 19th, 19th, and 19th December, 1893 respectively.

Memoranda on the Wheat crop for the season of 1893-94 and early Cotton crop of Deccan, dated Bombay 22nd and 16th December 1893 respectively.

Extract from the Proceedings of the Offg. Chief Commissioner, Central Provinces Dated Nagpur 16th November 1893.

Revised list of Chrysanthemum plants for sale at Government A. H. Gardens, Lahore 1893.

Proceedings of the Tenasserim Agri-Horticultural Society held on 16th December, 1893.

The following contributions were made to the gardens :—

One small packet of seed of Tagasaste (Cytisus proliferus) from the Agri-Horticultural Society of India, Calcutta.

Seeds of Podocarpus pruinosus, P. Thunbergii, Vernonia vernonella, Greyia Sutherlandii, Clematis Stanleyi and Bauhinia galpini from the Botanical Department, Durban, Natal.

Seed of Licuala horrida from the Director Botanic gardens, British Guiana.

Seed of Asparagus plumosus from Mr. J. T. Ferguson, Calicut.

Seed of Lyme grass from the Agricultural and Horticultural Society of of India, Calcutta.

Résumé of a Report on the cultivation of *Morus serrata* by Mr. Nitya G. Mukerji, Bengal Agricultural Department, and communicated by Mr. Hamilton-Holmes, Madras.

(1). Morus serrata is usually grown as a fodder crop, and for feeding silk worms and yields seven crops of leaves in a year at a cost of Rs. 75 per acre, the first crop being gathered in three months from the time of planting. Pruning every December would be beneficial, so that when the flush of leaves comes they would be within 8 to 12 feet from the ground, beyond the reach of cattle but within the easy reach of the men gathering them. The Morus however may be allowed to grow into large trees and so take care of themselves, save pruning and other cultural expenses, but the leaves should not be plucked from it for the first five years. Morus serrata grows to a height of 80 or 90 feet, its wood is excellent for furniture, &c., cattle can be fed on the leaves, the tender young leaves can be cooked and eaten, and the fruit which remains green even when ripe is sweet and edible. The tree is quite hardy, will grow on the poorest soil, and is not affected by excess of rain or drought. The trees should be planted 50 yards apart, so as to allow cultivation to be carried on between them. The yield of leaves from a middle-sized tree is sufficient to feed enough worms to produce annually 8 lb. of cocoons worth Rs. 2 and will have besides fruit, fodder and fuel; the fallen leaves being of use enrich the fields as manure.

(2). The seed is obtainable during the months of April and May. The seeds will germinate more rapidly if they are soaked in camphor water which is prepared as follows. Put one ounce of powdered camphor in a small thin cloth bag in a wide-mouthed bottle half filled with water: cork the bottle and shake it well, and let it stand for a day when it will be ready to receive the seeds which should be soaked in it for two hours and then sown. The seedbeds should be fairly well manured.

(3). The young plants may be taken from the seed beds when 9 to 10 ins. high and placed where they are to remain permanently. The lower branches or shoots should be cut off so as to throw more strength into the leading shoot otherwise they may branch out vigorously and become large low sized trees and by their shade injure the crops growing between them. When each seedling is planted out, it should receive a small quantity of old manure, to give it a start. Should the rainfall be scantier than usual, the seedlings may be watered until they establish themselves.

(4). A cultivator can grow 50 trees on 4 acres of land if he plants them 25 yards apart. The profit from these 50 trees will be more than he can obtain from any other crop and at the same time the trees being on the land will not prevent him cultivating crops between them.

(5). *Expense.*—The cost of making and keeping up a nursery of seedlings would be about the same as the cost of making and keeping up a plot of Bengal Mulberry or about 75 Rupees as stated in the 1st paragraph details of cost for 1 acre Nursery for 2 years.

	Rs.	A.	P.
Digging space required in December (90 men at 3 as.) ...	16	14	0
Ditching and fencing by piece work	30	0	0
Hiring 36 ploughing men with plough bullocks and harrow from June to September at 4 as.	9	0	0
Spreading 30 cart loads of rotten manure in September ...	10	0	0
15 men employed in transferring plants from seed bed (or boxes in a verandah) to planting place	2	13	0
Weeding in October	1	8	0
Occasional weeding and watering by a man constantly employed from November (1 year wages)	72	0	0
Rent for 2 years	12	0	0
Total expense during 2 years ...	154	3	0

The résumé will be printed in the Proceedings. The tree being a native of the temperate Himalayas is not likely to succeed in the plateau of Southern India, but may be worth trying on the Mysore plateau, and on the Hills.

Peperoli seed.—Read letter from Mr. David Leighton dated 28th November, 1893, forwarding a packet of 'Peperoli' (Capsicum sp.)seed which he collected in Naples in October last. The seed was distributed to the following gentleman for trial with the exception of a small quantity sown in the gardens. We have now about 30 young seedlings for planting out.

G. M. Woodrow, Esq., Poona; J. Beck, Esq., Morvi; J. H. Stephen, Esq., Bangalore; W. Gollan, Esq., Saharanpur; The Cossipore Practical Institute of Horticulture, &c., Calcutta; W. Hamilton Holmes, Esq., Madras.

Tree Seeds.—The undermentioned tree and shrub seeds were collected for distribution to members and Botanic Gardens.

Cycas circinalis.
Zizyphus jujuba.
Pterocarpus marsupium.
Bauhinia acuminata.
Erythroxylon Coca.
Ruellia tuberosa.
Panicum jumentorum.
Artabotrys odoratissima.
Santalum album.

Chrysanthemums.—Read letter from the Superintendent, Government Agri-Horticultural Gardens, Punjab, dated Lahore 12th December, 1893, forwarding a copy of catalogue of Chrysanthemum plants and offering to supply gratis a selection of young plants about the middle of March next.

This offer will be accepted with many thanks. Selection of the plants to be left to the Superintendent.

Committee Member.—Read letter from Mr. F. W. Emery dated 5th December, 1893, requesting to withdraw his name from the Committee of the Society as he shortly leaves India for England.

Accepted with regret.

Resolved that Dr. E. Thurston be invited to join the Committee.

Special Prize.—Read letter from the Hony : Secretary, Cossipore Practical Institution of Horticulture, dated 20th December, 1893, requesting to be informed whether the Society is disposed to give any special prize for any subject at their Flower Show of 1894 to be held on 10th and 11th February.

The Committee are not disposed to offer any prize.

The following is a list of trees and shrubs planted out in the gardens during December 1893 : —

Elæocarpus sp.
Ipomæa (yellow).
Strychnos potatorum.
Oleander white.
Peltophorum ferrugineum.
Eucalyptus citriodora.
Bauhinia sp. from Mr. J. T. Ferguson.
Urostigma Vogelii.
Hibiscus of six sorts.
Caryota urens.
Pterospermum acerifolium.
Natal composite.
Ravenala madagascariensis.
Spathodea campanulata.

Financial statements, for December 1893 and October to December 1893, read and passed.

Resolved that Messrs. Crombie and Walker be invited to audit the accounts for 1893.

A. T. ARUNDEL,
Chairman.

H. W. H. COX,
Honorary Secretary.

Financial Statement for October to December, 1893.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 30th September, 1893.	1,403	0	7				Pay of Society's servants in Oct., 1893 ...	285	2	9	...	...	...
Do. receipt book on 30th September, 1893 ...	91	8	0				Other expenses in Oct., 1893 ...	392	15	0	678	1	9
Do. expense book on 30th September, 1893 ...	31	8	10				Pay of Society's servants in Nov., 1893 ...	285	7	0	...	...	...
							Other expenses in Nov., 1893 ...	358	7	0	643	14	0
							Pay of Society's servants in Dec., 1893 ...	283	9	9	...	...	...
				1,526	1	5	Other expenses in Dec., 1893 ...	573	13	9	857	7	6
							Balance with Messrs. Binny & Co., on 31st December, 1893* ...	1,662	12	0	...	...	...
By sales of seeds & plants & grant from Government &c., during October, 1893 ...	918	8	6				Do. Receipt book on 31st Dec., 1893.	119	2	6	...	...	...
Do. do. November, 1893.	892	5	6				Do. Expense book on 31st Dec., 1893.	79	6	2	1,861	4	8
Do. do. December, 1893.	703	12	6										
				2,514	10	6							
Total Rupees ...	...	...	..	4,040	11	11	Total Rupees ...	...	...	...	4,040	11	11

* Including Government grant of Rs. 500 for Flower Show of 1894.

H. W. H. COX,

Honorary Secretary, Agri-Hortl. Society, Madras.

Proceedings of the Annual General Meeting of the Agri-Horticultural Society of Madras, held on Saturday, the 31st March, 1894.

PRESENT:

Hon'ble. Mr. A. T. ARUNDEL.	Mr. J. L. WALKER.
Mr. A. J. CROMBIE.	Rai Bahadur A. THANAKOTI MUDELLIAR.
Mr. E. THURSTON.	Col. H. W. H. COX.
„ REDDY BRANSON.	

It was proposed by Mr. Thurston, seconded by Mr. J. L. Walker and carried unanimously that Hon. Mr. A. T. Arundel, do take the chair.

The Honorary Secretary at the request of the Chairman read the following:—

Season.—The season of 1893 was not much better than the two preceeding years, it commenced and continued unfavourable for planting operations till November, during which month 23·47 inches of rain fell followed by 1·25 inches in December. The list of trees planted out are given on page 69 and 74 of the proceedings for October to December, 1893.

The following statement shews the rain-fall in each month during 1893:—

January	...	inches	0·33	July	...	inches	4·90
February	...	„	0·05	August	...	„	2·45
March	...	„	1·63	September	...	„	2·90
April	...	none		October	...	„	5·52
May	...	„	0·24	November	...	„	23·47
June	...	„	1·24	December	...	„	1·25

A moderate cyclone occured on 6th November, 1893, and caused some damage but our losses were not serious.

Water Supply.—Red Hills water supplied to the Gardens during the year was in

January	222,300	July	246,100
February	274,200	August	283,000
March	254,300	September	346,500
April	389,000	October	193,400
May	438,100	November	120,100
June	381,000	December	107,800

Shewing a total of 3,255,800 gallons at a cost of Rs. 361-12-0. In 1892 we used 2,819,300 gallons at a cost of Rs. 313-4-2.

Alterations &c. in the Gardens,—A new roof of cocoanut-fibre netting was placed on the large fernery during the past year and bamboo trellis work roofs on the small fernery and the conservatory. In all the houses galvanised iron wire was substituted for the bamboo trellis formerly used for the sides. When well covered with creepers this proves very satisfactory and will be economical. A few of our old Guatteria trees which were injuriously shading the conservatory were removed, also some which were shading and crowding the shrubs near the oval tank. During the month of August a pipe was laid from the branch pipe in the Cathedral Road to supply Red Hills water to the Nursery and Experimental Gardens.

Agave rigida var. sisalana.—continues to prosper, the largest planted out specimen measuring 4 feet in height and $5\frac{1}{2}$ feet in width, the largest leaf found was 3 feet 7 inches long and $4\frac{1}{2}$ inches broad. During the past season these larger plants have thrown up suckers which have been added to the stock for further extending our Agave plantation when opportunity occurs of planting out.

Library.—The following books and periodicals, have been added to the library during 1893 :—

I.—Supplied Gratuitously.

Icnography of Australian Salsolaceous plants by Baron Ferd. Von Mueller K. C. M. G. 8th Decade.
Bulletin of the Botanical Department, Jamaica.
Kew Bulletin of Miscellaneous information for 1893.
Bulletin of the Brisbane Botanical Department.
,, Madras Agricultural Department
L'Illustration Horticole for 1893.
Indian Forester for 1893.

Proceedings and Journal of the Agri-Horiticultural Society of India.
Tropical Agriculturist.
Dictionary of the Economic Products of India vol. VI. parts 1 and 2.
A Hand-book to the Flora of Ceylon, by Dr. Henry Trimen F. L. S. &c. part 1.
Agricultural Bulletin, Malay Peninsula.
Indian Museum notes part 6 of vol. II.
Agricultural Ledger series 1893.
Guides to the Commercial collections, Indian section of the Imperial Institute.
Companion for the Queensland student of plant life.
Hooker's Flora of British India, part XIX 1893.
Sugar planting in Queensland 1893.
Report on Liberian Coffee cultivation in Malay, 1895.
Mrs. Loudon's The Ladies Flower Garden, 4 vols.

II.—Acquired by purchase.

Gardeners' Chronicle for 1893.
Botanical Magazine for 1893.
Hooker's Icones plantarum parts 1, 2, and 3 of vol. 23 and 1 and 2 of vol. 22
Nicholson's Illustrated Dictionary of Gardening in 4 vols. 1885.
Lowe and Howard's beautiful leaved plants, 60 coloured illustrations, 3rd edition, 1891.
Hibberd's new and rare beautiful leaved plants, 2nd edition, 1891.
Efforts are being made to supply the volumes of Curtis' Botanical Magazine still wanting in our library. Three of the missing volumes (vols. 76, 88 and 89) were purchased during the year and others are yet to be procured.

Proceedings of Government.—The Society has continued to receive official reports on matters connected with agriculture in the various Provinces of India. These have been duly acknowledged in the periodical Proceedings of the Society.

Government Grant—The monthly grant of Rs. 250, the extra annual grant of Rs. 500 and the special grant of Rs. 500 for prizes in the annual show have been continued. The Committee desires to record its thanks to Government for this liberal assistance.

The following is a list of the plants added to the Gardens during the year:—

Phœnix rupicola
Wallichia disticha
Chamærops sp.
Ficus Trimeni
Pinanga paradoxa
Archontophœnix Cunninghamii
Livistona chinensis
Ptychosperma McArthurii
Calyptrocalyx spicatus
Oncosperma fasciculata
Areca glandiformis
Corypha elata
Pandanus Mellori
Orchids from Andamans
Bauhinia sp. from Calicut
Cassia renigera
Caladiums (11 kinds of named varieties)
Orania Bentinckia
Cycas Rumphii
Caryota sobolifera
Crinum longifolium
Calamus (4 vars.)
Phœnix humile
Amaryllis, hybrid variety
Bambusa siamensis
Abroma augusta
Garcinia Cowa
Aglaia odorata
Allamanda violacea
Elæocarpus prinoidea
Eranthemum esmeralda
,, versicolor
,, crenulatum
Gardenia Fortuniana
Ixora Prince of Orange
Mesua ferrea
Muracuja ocellata
Nipa fruticans
Phyllarthron Bojerianum
Persian bulb name unknown
Urostigma Vogelii
Casuarina humilis
Clerodendron tomentosum
Doryanthus Palmeri
Bauhinia Leichhardti
Cæsalpinia tora
Melaleuca genestifolia
Amherstia nobilis
Durio Zebithinus
Hibiscus magnificus
Monstera deliciosa
Pierardia sapida
Chlorophytum elatum variegatum (Anthericum variegatum)
Stenotaphrum (Americanum) variegatum Australian Buffalo grass
Pogonantherum saccharoideum
Asparagus 2 kinds
Cassia floribunda
Yucca quadricolor
,, recurva pendula
Bauhinia Hookeri.
Cytisus proliferus
Asparagus sp. from Calicut
"Peperoli" Capsicum sp.
Lyme grass
Aristolochia Ducharti
Pachyrhizus angulatus
Nandina domestica
Torenia Bailloni
Zinnia linearis
Mina lobata
Phlox hortensiæflora
Zinnia Haageana

Acknowledgments.—The Committee has occasion to record its thanks to Messrs. J. Cameron, W. Hamilton Holmes, W. Gollan, D. E. W. Leighton, T. Brown, J. L. Walker, J. H. Stephen, Hon'ble Mr. A. T. Arundel, Dr. George King, The Superintendents, Horticultural Gardens, Cossipore and Nagpur; and Annandale Gardens, Simla; for communications made to the Society during the year.

Exchange.—During the year seeds and plants were received from and sent to :—

The Superintendent, State Gardens, Baroda.
T. H. Storey Esq., Superintendent Sajjan Niwas Gardens, Oodeypore.
The Honorary Secretary, Botanic Gardens, Cossipore.
G. M. Woodrow Esq., Poona.
M. Ridley Esq., Horticultural Gardens, Lucknow.
Rev. G. Richter, Coorg.
W. Strachans Esq., Karachi.
John Cameron Esq., Superintendent Government Gardens, Bangalore.
A. Jamieson Esq., Curator Government Gardens, Ootacamund.
J. Beck Esq., Katiywar.
Joseph Steavenson Esq., Madras.
C. Maries Esq., Gwalior.
The Consulting Architect to the Government of Madras.
J. Phillips Esq., Allahabad.
The Superintendent, Empress Botanic Gardens, Poona.
E. M. Breithaupt Esq., Pollibetta.
H. Mann, Esq., Port Blair.
The Curator, Botanic Gardens, Durban, Natal.
The Secretary, Horticultural Gardens, Singapore.
Rev. E. A. Johnson D.D., Pensylvenia, U.S.A.
W. Gollan Esq., Superintendent, Botanic Gardens, Saharanpur.
The Superintendent, Royal Botanic Gardens, Calcutta.
The Director Botanic Gardens, St. Petersburgh.
" Botanic Gardens, Jamaica.
" Botanic Gardens, Grenada.
" Royal Gardens, Kew.
" Jardine Royal de Botanic de Berlin.
" Botanic Gardens, Melbourne.
" " Tasmania.
" " George Town, Demerara.
" " Adelaide.
" " Gardens, Buitenzorg, Java.
" " Gardens, Hongkong.
" " Gardens, Trinidad.
" " Sydney.
" " Brisbane.
" Royal Botanic Gardens, Peradeniya.
Mrs. Munro, Peermade.
W. Hamilton Holmes Esq., Madras.
A. Parsons Esq., Superintendent, Government Gardens, Simla.
The Superintendent, Agri-Horticultural Gardens, Nagpur.
Mr. S. Ponnurungum Pillay, Gundy Park.
T. J. Ferguson Esq., Calicut.
The Superintendent, Victoria Gardens, Bombay.
H. S. Ferguson Esq., Trevandrum.
The Superintendent, Taj Gardens, Agra.
J. S, Noble Esq., Rangoon.
Messrs. Damman & Co., Naples.
The Residency Superintendent, Cochin.
E. W. Hilgard Esq., Califorina U.S.A.
The Secretary, Agri-Horticultural Society of India, Calcutta.

Exchange of Publication.—Copies of our Proceedings were as usual sent to the Government of India, to Kew, and the Principal Botanic Gardens at home, in India, and the Colonies, to each of our correspondents and to all Members of the Society.

Seeds and Plants distributed to Botanical Gardens, &c.

Erythroxylon Coca seed	1875 seeds and oz. 15
Ficus indica	oz. 4
Victoria regia seed 6 and plants	3
Tree and shrub seeds	packets 317
Plants sent in wardian case to Port Blair &c.	86
Swietenia macrophylla seedlings	500
Gloriosa superba roots	1000

Seeds and Plants Given to Members Gratis.

Palms	266
Ferns	158
Divi-Divi	100
Guinea grass plants	200
Other plants	947
Vegetable seeds (in assorted collections of 28 vars.)	packets 1624
Flower seeds (Do 40 „)	2360

Seeds and Plants, &c., sold.

Plants	2,462
Cardamum plants	1,000
Victoria regia plants	5
Rain trees	104
Casuarina plants	1,000
Fourcroya plants	100
Crotons	301
Roses	21
Grafted mango plants	71
Fruit trees	163
Hanging baskets	5
Leaf mould	carts 7
Realized by sale of firewood	Rs. 72 13 as.
Bouquets, wreaths, crosses, and baskets of flowers	... 464
Lawsonia alba seed	lb. 6 0
Poinciana regia seed	„ 2 0
Butea frondosa	„ 10 0
Grass seed	„ 38 0
Casuarina seed	„ 11 2
Grevellia robusta seed	„ 30 2½
Lucerne seed	„ 138 1
Albizzia moluccana seed	„ 15 0
Vegetable seeds (English)	packets 1,565
Do. (Country)	„ 145
Flower seeds	„ 1,426
Other seeds	„ 143
Plants sent out for loan	plants 1,515
Inga dulcis seed	lb. 299

Agency.—Enquiries were made during 1893 for various ornamental and economical plants of which the following were procured and supplied.

Thornless Erythrina seed.	Vines.
Apple (grafted) trees.	Cardamom plants.
Peach trees.	Amherstia nobilis.
Pear trees.	Victoria regia seed and plants.
Strawberry plants.	Cytisus proliferus
Plum trees.	Guinea grass seed and roots.

Unsuccessful efforts were made to supply applications for :—

Kola nut.	Blood orange.
Astragalus.	Citrus japonica.

Gardeners.—During the year Gardeners were engaged for local gardens and also for three gardens up-country.

Committee Members.—During the year Dr. D. Duncan, and T. W. Rawlins Esq., resigned their seats on the Committee and their places were filled by Hon'ble Mr. J. Grose and W. F. Emery Esq., but the latter resigned owing to his approaching departure from India.

Colonels Moore and Cox continued to hold the Offices of Chairman and Honorary Secretary respectively throughout the year.

Members.—During the year 15 members joined the Society and 20 Members resigned or ceased to subscribe owing to absence from India. The total number of subscribing Members at the end of 1892, was 107 (71 A and 36 B Class), and at the end of 1893, 102 (62 A and 40 B Class).

Flower Show.—The Flower Show held in February, 1893, was dealt with in the annual Report for 1892. The account of the Show held in February, 1894, will be found in the Annual Report to be submitted for that year.

Income and Expenditure.—The income of the Society in 1893, from all sources amounted to Rs. 11,161-13-0. The expenditure during the year was Rs. 10,633-8-11 as compared with Rs. 10,086-5-10 and Rs. 9,909-0-6 in 1892. Details will be found in the statement attached to this Report.

The thanks of the Society are due to Messrs. Crombie and Walker who kindly undertook the labour of auditing the accounts. Their report is appended.

To

THE HONORARY SECRETARY,

Agri-Horticultural Society, Madras.

DEAR SIR,

As requested by the Committee, we have audited the accounts of the Society for the year 1893 and have found them correct. The accompanying statements show the working for the year under review.

Yours faithfully,

D. A. J. CROMBIE,
J. L. WALKER, } *Auditors.*

16*th February*, 1894

FINANCIAL STATEMENT FOR 1893.

Receipt.

	Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st Dec., 1892.	1,246	5	7			
Cash in hand as per receipt Book	61	8	0			
Do. Expense Book	25	3	0	1,333	0	7
Government allowance at Rs. 250 a month ...	3,000	0	0			
Do. extra Grants	1,000	0	0	4,000	0	0
By Subscription	2,131	4	0	2,131	4	0
By Sale of Seeds	1,999	5	6			
,, Plants	1,336	10	0			
,, Sundries	837	13	6			
,, Loan of Plants	185	0	0			
,, Sale of tickets at Flower Show ...	671	12	0	5,030	9	0
Rupees...				12,494	13	7

Expenditure.

	Rs.	A.	P.
Expenses as per statement annexed ...	10,633	8	11
Cash with Messrs. Binny & Co., on 31st Dec., 1893.	1,662	12	0
Cash in hand as per Receipt Book	119	2	6
,, Expense Book	79	6	2
Rupees...	12,494	13	7

PARTICULARS OF EXPENSES FOR 1893.

				Rs.	A.	P.	Rs.	A.	P.
Petty Articles such as rail charge cart hire &c., recoverable							549	3	9
Do. unrecoverable							207	7	10
Fixed Establishment							3,390	13	8
Coolies							692	0	8
Postage on Letters and Proceedings &c.							95	10	1
Seeds, English purchased in 1892 but paid in 1893.				1,000	12	3			
,, Country				523	0	1			
,, English, purchased in 1893				1,052	5	6	2,576	1	10
Plants purchased							314	9	6
Manure							72	0	0
Printing							166	10	8
Newspaper and Periodicals							91	2	0
Advertising Seeds and Plants							26	7	0
Building and repairs							81	13	4
Red Hills water supply							396	1	5
Garden repairs							165	0	3
Coir Netting							63	7	0
Municipal Tax							45	12	0
Books and Binding charges							135	13	11
Pots							56	12	0
Pipes laid							180	4	5
Quit-Rent for Cocoanut tope							4	10	6
Flower Show — Printing and Advertising				128	9	0			
Flower Show — Prizes awarded and Medals				785	12	0			
Flower Show — Refreshment				137	12	1			
Flower Show — General Expenses				269	10	0	1,321	11	0
Total Rupees							10,633	8	11

D. A. J. CROMBIE,
J. L. WALKER, } *Auditors.*

Proposed by Mr. Reddy Branson, seconded by Rai Bahadur Thanakoti Mudelliar, and carried unanimously that the Report be adopted and published.

The following gentlemen were elected as members of the Committee for the coming year.

Hon'ble Mr. A. T. Arundel,
Mr. R. Branson,
Hon'ble Mr. H. Clogstoun, C.S.I.
Mr. D. A. J. Crombie,
Mr. W. Hamilton Holmes,
Col. G. J. M. Moore, C.S.I.
Mr. E. Thurston,
Rai Bahadur A. Thanakoti Mudelliar,
Mr. J. L. Walker,
Hon'ble Mr. J. Grose,
Col. Fane Sewell,
Mr. D. E. W. Leighton,
Colonel Cox, *as Hony. Secretary.*

Proposed by Mr. Reddy Branson, seconded by Mr. E. Thurston, and carried unanimously that a vote of thanks be accorded to Messrs. D. A. J. Crombie and J. L. Walker for kindly auditing the accounts for 1893.

Proposed by Mr. D. A. J. Crombie, seconded by Rai Bahadur Thanakoti Mudelliar, and carried unanimously that a vote of thanks be accorded to Colonel H. W. H. Cox, for his service as Honorary Secretary during 1893.

Proposed by Mr. J. L. Walker, seconded by Mr. R. Branson and carried unanimously that a vote of thanks be accorded to the Chairman for his conduct in the chair.

A. T. ARUNDEL,

Chairman.

MEMBERS OF THE SOCIETY, ON THE 31st DECEMBER, 1893.

President.

The Right Hon'ble Lord Wenlock, G.C.S.I.

Honorary Members.

Bernays, L. A., Esq
Ferrier, General J. P.
Hooker, Sir J. D., K.C.S.I., C.B.

Extraordinary Members.

Benson, Lieut-General R.
Bidie, Surgeon-General G., C.I.E.
Cleghorn Dy. Inspector-Genl. H.
Duff, Sir M. E. Grant, G.C.S.I.
Lawson, Sir Charles A.
Steavenson, Joseph, Esq.
Thanakoti Mudr. Kai Bahadur, A.
Vizianagaram, H. H. the Maharajah of, K.C.I.E.
Whiteside, W. S., Esq.

Subscribing Members (A class.)

Arundel Hon'ble Mr. A. T.
Betts, W. S. Esq.,
Boosey, T. J. Esq.
Bobbili, H. H. The Rajah of
Bishop, the Right Rev. Lord of Madras. D. D.
Branson, Reddy, Esq.
Beck, J. Esq.
Barclay, E., Esq.
Branfoot, Surgeon-Lieut Col. A. M.
Branson, Hon'ble Mr. J. H. Spring,
Boyson, Hon'ble Mr. J. A.
Best, Hon'ble Justice J. W.
Bannerman Surgeon-Capt. W. B.
Cox, Colonel H. W. H.
Collins, the Hon. Chief Justice Sir Arthur C.S.I.
Clogstoun, Hon'ble H. F. C.S.I.
Conington, C. W. Esq.
Deane, G. W. Esq.,
Emery, W. F. Esq.,
Elialvar, Naidoo, Mr. P.
Ferguson, J. T. Esq.
Gajputhee, Row, Rajah Sahib, G. N. C.S.I.
Gill, F. M. G. Esq.
Gooboor Estate, Manager of,
Grose, Hon'ble Mr. J. M.A.
Fiddian, J. P. Esq. C.S.
Holmes, W. Hamilton, Esq.
Homayunjah, Bahadoor Hon'ble Meer. C.I.E. (late),
Hammick, M. Esq. C.S.
Harding, H. O. D., Esq.
Kyd, John, Esq.
Keess, W., Esq.
Moore, Colonel G. J. M., C.S.I.,
Muthusawmy Iyer, the Hon'ble Justice Sir, K.C.I.E.
Mahamud Sheriff Khan Bhadoor.
Maynell, E., Esq.
Miller, L. C., Esq.
Norton, E., Esq.
Nicholas, J. P., Esq.
Oakes, A. W. D., Esq.
Rajah of Ramnaad, Sethupathi.
Rajah Muddukrishna Yachandra Bh'door.
Romilly, George, Esq.
Stokes, Hon. Sir H. E., K.C.S.I.,
Sashiah Sastri A., Dewan Regent of Pudukota, C.S.I.
Stanes, Thomas, Esq.
Straubenzie Brigadier Genl., Van.
Sah Man Mull, Esq.
Slater, C., Esq.
Strivatsanka Row, V., Esq.
Sewell, Colonel Fane.
Thorburn, W. M., Esq.
Taylor, T. A. Esq., (*late*)
Thandavaraya Pillay, A. P., Esq.
Travancore, H. H. The Maharajah of, G.C.S.I.
Walker, J. L., Esq.
Wenlock, H. E. The Right Hon'ble Lord, G.C.I.E.
Wybrow, G. D., Esq.
Wilson, Major-Genl., C. H.
Zamindar of Parlakemedy.
Zamindar of Ettayapuram.

(B class.)

Breithaupt, E. M., Esq.
Bliss, Hon'ble, H. W., E.S.I.
Bourne, Dr. A. G.
Chentsal Row, Hon'ble, Mr. P. C.S.I.
Cheragh Ali Azam Jah Jung, Esq.
Crombie, D. A. J., Esq.
Etty, Revd., C. J.
Feast, Revd., R. B.
Garstin, The Hon. J. H. C.S.I.
Grant, Surgeon-Captain, A. E.
Holmes, W. C., Esq.
Hony. Secretary Bamboo Club.
Kerwan, L. E., Esq.
Krishnamoorti Iyengar, T., Esq.
Leighton, D. E. W., Esq.
Lawson, A. E., Esq.
Logan, David, Esq.
Laing, T. W., Esq.
Muthusawmy Moodellyar, Dr. P. S., F.L.S.
Mahamud Mirza Ismail Khan.
Morris. R. Esq.
Meyer, W. S., Esq.
Marjoribanks, J. Alexander, Esq.
Porcheron, E. H. P., Esq.
Rawlins, T. W., Esq.
Rama Row, T., Esq., C.S.I.
Sama Row, C. R., Esq.
St. Leger, W. D., Esq.
Shaw, W. S., Esq.
Seetharamiah Garoo Rajah, C. V. Chinna.
Streenevasa Row Sahib, A.
Sandoor, H. H., The Rajah of.
Underwood Colonel T. O.
Venkasawmy Row, Rao Bahadoor, T.
Vasudeva Row, R. H., Esq.
Van Geyzel, Surgeon-Major.
Willock, W. A., Esq.
Wyatt, S., Esq.
Wright, W., Esq.
West, Henry C., Esq.

Proceedings of the Agri-Horticultural Society of Madras for January, 1894, held on Monday, the 5th February, 1894.

PRESENT:

Colonel G. M. J. MOORE, C.S.I., *Chairman.*

Mr. D. A. J. CROMBIE.
„ J. L. WALKER.
„ REDDY BRANSON.

Colonel H. W. H. Cox,
Hony. Secretary.

The following contributions were made to the Society's Library:—

Watt's Dictionary of the Economic Products of India, Part IV, Vol. VI, 1893.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile Maurice, No. 5, December, 1893.

Annual Report of the Department of Land Records and Agriculture, Assam, for 1892-93.

Bulletin van het Kolonial Museum te Haarlem, December, 1893.

Proceedings of the Madras Government, Nos. 1103 and 1103 A, dated 29th December, 1893, Reviewing Forest Administration Report, 1892-93.

Tropical Agriculturist, No. 5 of Vol. XIII, November, 1893.

Report on the Cawnpore Experimental Farm for the Karif and Rabi seasons, 1892-93.

Bulletin of the Brisbane Botanical Department, No. 25, June, 1893, and No. 1 Second series, September, 1893, and also a pamphlet on Sugar-planting in Queensland, 1893.

Tenth Annual Report of the Department of Land Records and Agriculture, Bombay Presidency, for the year 1892-93.

Annual Report of the Government Experimental Farm, Poona, for the year ending 31st March, 1893.

Hand-books of Commercial Products (Indian Section of Imperial Institute Series) No. 26, Barley and European Brewing in India; and No. 30 Black or Rosewood of Southern India, 1893, (Dalbergia latifolia), 1893.

Report on the Agriculture of the district of Cuttack, 1893.

Memoranda on the prospects of the Sesamum crop of the Punjab for the year 1893, dated Lahore, 2nd January, 1894; Indigo crop of the Punjab for the year 1893, dated 18th December, 1893; late sowings of Gingelly, dated Madras, 29th December, 1893; Til crop of the N. W. P. and Oudh for 1893. dated Lucknow, 30th December, 1893; Sesamum crop of the season 1893-94, dated Calcutta, 13th January, 1894, and Sesamum crop of Berar, dated Calcutta, 3rd January, 1894.

Vilmorin Andrieux & Co's. General Wholesale Seed List for 1893-94.

Sutton's Amateur's Guide in Horticulture for 1894.

Leteller et Fils et Cie General Catalogue of Seeds and Plants No. 48.

The following contributions were made to the Gardens:—

40 Areca catechu seeds from Colonel H. W. H. Cox, Egmore, Madras.

3 seeds of Mammea americana from the Director, Botanic Gardens, Jamaica.

One packet of seed of Cosmos albus, from Mr. J. H. Stephen, Curator, Lal-Bagh, Bangalore, and also seeds of Ficus elastica, F. Benjamina and F. Macrophylla.

The undermentioned seeds from the Director, Botanic Gardens, Buitenzorg, Java:—

Livistona altissima.
Arenga saccharifera.
Dæmonorops fissus,
Arenga obtusifolia.
Do aping.
Dæmonorops palembanicus.
Ptychosperma Scaforthia.
Livistona Jenkensii.
do. mauritiana.
do. humilis
Kentia costata
do. moluccana.
do. McArthuri.
Thrinax multiflora.

Seeds of Livistona mauritiana and Gloriosa superba, from T. H. Storey Esq., Oodeypore.

One packet of seed of Stephanotis floribunda, from J. T. Ferguson, Esq., Calicut.

Cuttings of Euphorbia Jacquiniflora, from W. Gollan, Esq., Saharanpur.

Polygonum as fodder.—A packet of seed of Polygonum sachalinense was received from Baron Ferd. Von. Mueller, K.C.M.G., Government Botanist, Melbourne, and sown on the 31st January, 1894.

The following are extracts about the use of the plant:—

"I can show a bank 6 feet wide and 150 long, with finer variety of Polygonum than have been growing for some years; some I have cut for my cows, but some are standing, and it will show how they have stood the drought—I am shipping the seed and roots to India for growing on embankments by the side of the rivers and watercourses, for it stops the silt, and prevents the banks being washed away. It is grown on sandhills, near the sea, and if the dry canes are not cut for fuel, they greatly assist in stopping the sand. Thos. Christy."—*Gardeners' Chronicle*, July 29, 1893.

"So much interest has been excited by our notice of this plant as a forage plant in a recent number, that we are induced to revert to the subject, and give an illustration of the plant producing its seed vessels. The plant was first described by F. Schmidt in 1853, and on its introduction to our gardens in 1869 or 1870, by Mr. William Bull, it was made the subject of a descriptive notice by ourselves in our volume for 1870, December 3. p. 1599, and again in 1886, December 25, fig, 158 (here reproduced). It was figured also in the Botanical Magazine, t. 6540, and its great merits as a decorative plant have since been generally recognised. Our distinguished colleague, M. Ed. Andrè introduced it into France from Moscow in 1869, but it was not till quite recently that M. Doumet Adanson called attention to its value as a forage plant. As some confusion has arisen in the conversion from the simple metric system of weights and measures to our preposterously absurd

muddle, we repeat the figures as given by Messrs. Doumet Adanson and Ballet. The total weight of produce in the green state varies from 20 to 40 kilogrammes the square metre, or 200,000 to 400,000 kilos, the hectare, equalling 200,000lb., or 89 tons, 6 cwt. 16lb., to 178 tons, 12 cwt. per English acre or nearly double the weight of a crop of cabbage planted at 2 feet apart, and each plant weighing, when full grown, 10lb.—*Gardeners' Chronicle*, 5th August, 1893.

Coffee Borer.—Read the following letter and Report from Revd. G. Richter, dated Mercara, 27th January, 1894:—

"As an old correspondent of the Society who since 1866, has forwarded periodical reports on the Agri-Horticultural proceedings in Coorg, and especially in connection with Coffee cultivation, I thought it right to send you the result of my late investigations on the subject of the Honny-borer, an insect almost identical with the Coffee-borer that works so much distruction in Coffee plantations. I sent by to-day's book-post my report of 9 pages to your address and by parcel-post a box containing in three match-boxes specimens of larvæ and beetles of both the Coffee-and Honny-borer and of the Hymenopterous fly found in both Honny and Coffee-wood. I hope the communication will prove interesting to the members of the Society and should it be printed I would ask the favor of my getting six copies that I may send them to my friends."

P.S.—The insects are so brittle that they are best handled as they lie on the cotton tuft.

"In my Coorg Season-Reports of 1867, to the Agri-Horticultural Society, I have first drawn public attention to the Coffee-borer (Xylotrechus quadrupes) and given an accurate description of the insect in all its stages of transformation after a series of methodical experiments, and subsequent investigations added, but little to the information then communicated. As early as that date I have also suggested the same remedies which are now recommended and acted upon, *viz*:—immediate eradication and destruction by fire of every recognised borer-tree, rubbing or scraping the bark of healthy trees to prevent the beetle from laying its eggs into the crevices of the rough bark, coating stem and primaries with a solution of slaked lime mixed with some carbolic acid or kerosine and bringing the Coffee-plantation under judicious shade. There remained only one question to be solved? whence does the Coffee-borer come, where has it existed before Coffee-cultivation in Coorg, are any forest trees infested by the same or a similar insect? It was confidently expected that Dr. Bidie who was commissioned in October, 1867 by the Madras Government to investigate the ravages of the borer in Coffee Estates would solve this question; but in his Report dated the 3rd August, 1868, we only learn that the borer is indigenous and peculiar to India, that many years ago a specimen of the beetle was got somewhere in Southern India, by Chevrolat, and that it was well known nearly 30 years ago in native gardens amid the wilds of the Babuboodens. On page 50 Dr. Bidie writes: "So far as I am aware the beetle of the borer has not been found in any indigenous tree; but that may to a great extent be accounted for by the circumstances, that it is difficult to discover, whether or not a jungle-tree is preyed upon by borers of this one's habits, and even if their presence is suspected, it is but rare that one can have the time and means to cut down and examine a large tree. I have found another beetle belonging to the genus "Clytus" to which the (coffee) borer was originally referred, in forest trees, but although the grub of it has a strong resemblance to that of Xylotrechus, it is at once distinguished by the fact that it only attacks dead wood. It is not very common but will sometimes be found in the stump of a Jamoon tree." This is the Syzygium or Eugenia jambolana, in Canarese, Nerala mara.

Having myself suffered severely through the ravages of the Coffee-borer, I kept a steady eye on the borer-question all these years and welcomed the chance of resuming my former investigations, when last July, two pieces of a branch of the honny-tree, Pterocarpus Marsupium, were sent to me for examination by my neighbour, H. Mann, Esq., who obtained the wood from his estate near Siddapur in South Coorg. It was cut off a branch partly broken and hanging down from the parent tree. The two pieces on which I operated were 6 and 9 inches long and 3 thick with the bark on and apparently full of borers. On splitting them into many pieces on the 27th July, 1893, I took out 29 honny-borer-larvæ of various size, which were quite lively and may have been hatched from the eggs in April or May, like the Coffee-borer of equal size. Under the bark I found traces of the progress of the same larvæ and one grub alive. Examining the honny-larvæ and comparing them with some live coffee-larvæ just to hand, I could discover no difference in their appearance, size, and organization, and I send you specimens of either.

In order to proceed methodically with a definite object in view I determined to ascertain three things :—

1. To watch the development of the borer in the honny-wood.
2. To see whether the Honny-borer can live and develop in coffee-wood.
3. To see whether the Coffee-borer can live and develop in honny-wood.

1. Under a large bell-glass which I call number one, I kept six split and numbered honny-pieces which contained ten visible larvæ, to which I added eight others which had fallen out when I split the wood. A seventh piece was taken from the alburnum and contained four original larvæ of small size.

2. Of a green coffee-tree free from borer I cut five pieces, numbered them and with an auger made superficial grooves into which I placed 15 honny-larvæ and secured the whole under a glass-bell number two.

3. On three pieces of honny-wood, which showed no traces of insects and which I similarly prepared, I placed five Coffee-borer-larvæ and put them under glass-bell number three.

On the morning after this operation all the larvæ that had been visible the day before under the three glass-bells had burrowed themselves into the wood on which they were placed, each borer leaving a heap of wood meal over its burrow to close their tunnel and to work on in the dark in the well-known fashion of the coffee-larvæ packing as it advances the space behind with its agglutinated excrements. I observed, however, a certain restlessness and reluctance amongst the coffee-larvæ to attack the honny-wood; three of them had left their tunnels and crawled about under the wood and two died after some days. As stated they had been taken out of a green coffee-tree and evidently the almost dry honny-wood was not to their taste.

On the afternoon of the 25th September, I observed under the first glass-bell 4 developed insects, and on closer examination, I found two of them like the coffee-beetle and the other two being flies of slender elegant figure. On the 26th September, there appeared under glass-bell two, a fly like the one under the first glass-bell where a third beetle had joined the other two. Of these three beetles one was larger and therefore the female and the fact became soon evident. Copulation had already taken place and the female beetle walked first along the bell and settled on the ground which was a rough cardboard, then skirting one honny-piece it now and then pressed its ovipositor into a crevice and dropped its minute eggs, also on to the cardboard and the scattered wood powder. Thus it went on for 15 minutes, then resumed its walk over the glass having done its work for a time.

I caught one of the male beetles and examined it. It is similar to the coffee beetle in shape and size with only a slight difference in the marking of the elytra or upper wings, which is not so brilliant as in Xylotrechus. The black elytra are edged with a greyish-green seam and crossed by two crooked or double curved bands of the same colour, thus dividing each upper wing into three nearly equal parts, the upper or higher one having a dot, whereas the coffee-beetle shows a mark like the letter Y. Also the femurs are less brilliant and the darker hue of the beetle may be in accordance with the more sombre appearance of the honny-tree, whilst a coffee-tree is of bright, glossy foliage. However, a less critical observer would hardly see the difference between a coffee and a honny beetle and if a new name is to be given to it, the choice will not be easy. On the 30th September, a second female beetle appeared under bell number one and also a fly and on the 6th October, a fly under bell two. On the 8th October, a new male beetle showed itself under bell one, and at once copulated with the female of the 30th September, which immediately afterwards commenced laying eggs in the same manner already described. On the evening of the 8th October, another male beetle emerged under bell one, and when I placed a lamp near it, copulation and laying of eggs proceeded as by daylight. On the same day a small or male beetle appeared under bell number two.

Being absent from Mercara from the 9th to 13th October, on my return I found under bell one, 3 beetles alive, one pair in copulation. On the 16th one male beetle of these died, likewise the fly, and on the 17th October. the male beetle under the second bell, having spent its solitary life between the 8th and 17th. As it was the first honny-beetle come out of coffee-wood, I was curious to see its appearance, but it was like that of other honny-beetles. On the 18th October I cleared out the beetles and flies from the bells one and two and transferred them into spirits of wine.

The flies emerging from the honny-wood under bell one, and the coffee-wood under bell two, must have come out of the larvæ which I put in on the 27th July, and as I then did not observe any striking difference in the larvæ, they must have appeared very much the same; yet out of these larvæ there came flies and beetles. On examining the pieces of honny and coffee wood I observed under the bark and along the alburnum, longitudinal and superficial tunnels terminating in an oblong cavity, which was lined with a fine membrane apparently the cradle of the fly which had eaten its way out through the bark. In its development it is evidently harmless to the tree in which it lives. The fly itself is a slender waisted, elegant insect of the order Hymenoptera with two pairs of membranous, iridescent wings of few reticulations and the peculiar dark spot on the costal margin. The anterior are larger than the posterior wings. The head is round and black with large orbicular eyes; the antennæ are long, threadlike and black with an interruption of white at the beginning of the second-half of its length. The mandibles must be strong to enable the insect to eat its way out through the bark. The thorax is black and glossy and broadest where the anterior wings are inserted. The abdomen, which is upturned, equals the length of the thorax and head taken together, and in one specimen it terminates in a sheath, and in the other in a stinglike protuberance which touches the ground like a seventh leg, but I think it is the ovipositor. Whilst the insect was alive this protuberance appeared to be one single thread; but in the dead specimen it is divided into three filaments. Of the three pairs of legs the posterior ones are the longest and strongest with reddish-yellow femurs and tibias, and the last of the four divisions of the tarsi is two clawed. The flies flew freely about under the bell and also walked over the glass in all directions, the antennæ being all the time in lively tremulation. After this minute description of the fly its scientific name only is required, but this I am unable to give, but I forward two specimens for identification.

On examining the honny wood pieces on the 18th October, I found the beetles had made their exit through round holes just as the coffee beetles do, and there were as many holes as there were developed beetles. On pieces of wood operated on by the female beetles there were a number of eggs in groups of three, linked together. They were just visible like cheese-mites of a greyish-white translucent appearance. Under the magnifying glass their shape is oval, thicker at the end where they are not joined together. I hoped to see them hatched, but some minute ants had found them out and destroyed them all. The number of eggs was not so great, as I had expected from the many dips of the ovipositor of the female insects; but either they did not drop an egg everytime, or the eggs were securely hidden from observation.

Under bell one I had left only one honny piece, and on the 28th October another male beetle found its way out. It was quite lively and flew about, but on the following day it moped, and died on the 2nd November. Under bell three I found on the 3rd November a coffee beetle emerged from the honny wood, and when splitting all the remaining pieces of wood under bell two and three, they were bored in all directions in the well known fashion of the Coffee-borer.

From these investigations and experiments it is clear that—

1. There exists in the honny tree, Pterocarpus Marsupium, a borer insect which in its outward appearance, in its length of development, about six months from the egg, and in its boring operations, is almost identical with Xylotrechus quadrupes.

2. There is also a Hymenopterous insect which operates in its larval state under the bark in the alburnum of both the honny and the coffee tree, and though its larva is similar in appearance to that of the honny and coffee larvæ it is quite harmless.

3. The honny larva when transferred to the coffee tree operates on it with gusto and developes, in it as in its native habitat.

4. The coffee larva shows no inclination to make the honny tree its home, but nevertheless it can live and develope in it and very likely would do so readier in a green tree.

The honny tree being a large forest tree of two or three feet in diameter and abundant in all the timber producing districts of Southern India, the ravages of its borer, if at all extensive, which has still to be ascertained, would not show as the ravages of the Coffee borer do in a tree of only three or four inches in diameter. The honny tree prevails in Coorg in the Bambu District, and the ravages of the borer in coffee were there first observed and became there, and are even now there, most destructive. Perhaps, these facts are in relation to each other as cause and effect and if so, it is to be lamented that the effect remains after the cause has been removed long ago; for in most cases the honny trees on jungles selected for coffee cultivation are not retained as shade trees, but are generally felled for the excellent quality of the timber.

These hints may induce some planters to make a closer acquaintance with the honny tree, and I shall gladly assist in further investigations. I should like to study the development of the honny borer in the coffee tree from the egg to the perfect insect and ascertain, whether in several successive generations the honny beetle will evolve in colour and marking into the identical coffee beetle.

I have much pleasure in forwarding with this report a pair of honny-beetles and some larvæ and also a couple of the coffee-beetle with larvae, and a pair of the Hymenopterous insect."

Committee Member.—Read letter from Edgar Thurston Esq., dated 10th January, 1894, accepting with great pleasure, the invitation of the Committee to join them.

Superintendent's Salary.—Resolved that the salary of Mr. Gleeson, the Superintendent of the Gardens, be raised to Rs. 175 per mensem from 1st January, 1894. This increase of salary will be maintained so long as the funds of the society permit.

Judges for Flower Show.—Resolved that the gentlemen in the Honorary Secretary's list be invited to officiate as Judges at the approaching Flower Show.

Financial statement for January, 1894, read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary

Proceedings of the Agri-Horticultural Society of Madras, for February, 1894, held on the 5th March, 1894:—

PRESENT.

Colonel G. M. J. MOORE, *Chairman.*
Mr. D. A. J. CROMBIE.
Rai Bahadur A. THANAKOTI MUDELLIAR.
Colonel H. W. H. COX, *Honorary Secretary.*

The following contributions were made to the Society's Library:—

Bulletin of the Botanical Department, Jamaica, No. 49 for November, 1893.

Opinions of the Agricultural Authorities on the pamphlet, entitled 'A Collection of Agricultural Sayings in Lower Bengal, with Analogous Sayings in Behar and Orissa, 1893.'

Bulletin No. 1 of the Agricultural Department of Burma, containing names of the principal field crops grown in Burma, 1894.

Agricultural Ledger, Series No. 1 of the Hyderabad Assigned Districts, containing names of the field crops grown in the Hyderabad Assigned Districts, 1894.

Records of the Botanical Survey of India, Nos. 1 and 2 of Vol. I.

The Indian Forester, No. 1 of Vol. XX, January, 1894.

Proceedings and Journal of the Agricultural and Horticultural Society of India, for October to December, 1893.

Bulletin of the Department of Agriculture, Brisbane, No. 8, December, 1893, on contributions to the Queensland Flora, 1893.

Kew Bulletin of Miscellaneous Information for October, November, and December, 1893, January, 1894, and Appendix III of 1893.

The Tropical Agriculturist, Nos. 7 and 8 of Vol. XIII, 1894.

Proceedings of the Madras Government, No. 45, dated 20th January, 1894, re-Darkhast and for formation of a fruit garden on the Nilgiris; and No. 1,077, dated 18th December, 1893, investigating the question of scarcity rates.

Annual Agricultural Report of the Department of Land Records and Agriculture, Bengal, for the year ending 31st March, 1893.

Records of the Geological Survey of India, Vol. XXVI, Part 4, 1893.

Report on the Crop Experiments of Bombay Presidency, 1892-93.

Revue Agricole et Journal de la Chambre D'Agriculture de L'ile Maurice, No. 1, 1894.

Königlich Botanischer Garten der Universität Marburg, a. L. 1893.

Index Seminum in Horto Botanico Reg. Berolinensi, Anno 1893 collectorum.

Report on the operations of the Department of Land Records and Agriculture, Madras Presidency, for 1892-93.

Verslang omtrent den staat van 'Slands Plantentuin te Buitenzorg over het Jarr, 1892—1894.

Index Seminum in Hortis Musei Parisiensis Anno 1893 collectorum.

Memoranda on the cotton crop of the Presidency of Bombay, dated Poona, 16th February 1894; Rice-crop Prospects, 1893-94, dated Rangoon, 12th February, 1894; Mustard crop dated Calcutta, 5th February 1894; Rice-crop Prospects, 1893-94, dated 11th January, 1894; Final Report on the outturn of the Til crop of the Central Provinces—season 1893; Paddy crop of the Madras Presidency, dated 15th February, 1894; Preliminary Note on the Wheat crop of 1893-94, dated Calcutta, 14th February, 1894, and Cotton crop of 1893-94, dated Madras, 10th February, 1894.

The following contributions were made to the Gardens:—

One packet of Polygonum Sachalinense from Baron Ferd. Von Mueller, K. C. M. G., Government Botanist, Melbourne.

Packet of Seed of Solanum Seaforthianum from the Agri-Horticultural Society of India, Calcutta.

Seeds of Eucalyptus diversicolor, Rumex hymenocephalus from E. J. Wickson, Esq., University of California, California, U. S. A.

Seed of Anona cherimolia from the Director Botanic Gardens, Jamaica.

Grafting Chrysanthemums.—M. Alexis Callier, who introduced the plan of grafting Chrysanthemums on Anthemis frutescens, showed at the Brussels Exhibition on November 12th, a specimen of the variety "Val d'Andorre," which measured about 9 feet in diameter, and bore 783 flowers. A special waggon conveyed this plant from Ghent to Brussels, and on its arrival at the exposition buildings, the doors had to be taken off their hinges to admit it. At the Exhibition at Antwerp, which opened on the same day, four grafted Chrysanthemums were staged, La Triumphante measuring more than 8 feet across, and with 450 well-opened flowers; Etoile de Lyon, 4 feet across, and with 100 blooms, of which more then forty were of great size. All were of an unusually deep rose colour; was it only light, or in an equal degree the influence of the graft which imparted this beautiful tint to the flowers? These two fine plants were from M. Jean Everaerts. M. Henry Vanderlinden showed a fine Val d' Andorre, and M. A. Linden a good Mdlle. Rose Sibours, both being grafts. We can safely prophesy that grafting will some day be generally adopted, or at least more largely than at present.—*Gardeners' Chronicle*, November, 1893, p. 658.

The Flower Show.—*The Madras Mail makes the following Remarks.*—The Annual Exhibition of the Madras Agri-Horticultural Society was held on Saturday the 24th

February, 1894 at the Society's Gardens, Teynampett. There was a very good attendance at the beginning, and as the morning wore on the show was crowded. The exhibits both floral and vegetable were, in the majority of instances, very good indeed, and compared favourably with those of former years, the good monsoon which we have had this year contributing greatly to this result. The arrangements were in every respect precisely the same as have hitherto obtained, and were satisfactory, but it may not be out of place here to throw out a hint which, if adopted, would prove very convenient to visitors. Exhibits might, we think, be labelled with the name of the owners. There is, as at present arranged, nothing on the exhibits to inform people, who the owners are of any particularly striking exhibit. Outside the barrier the Bangalore and Mofussil market gardeners as usual have their stalls on which their produce is exposed for sale ; but as these in no way form part of the show they need no further comment. The market garden produce for competition comes next, and forms a very good assortment indeed. Amateur market gardeners of Madras have also some very choice exhibits, Government House, Mr. A. Grant, Mr. Laing, and Mr. Nicholas being the chief exhibitors. A magnificent collection of chillie trees with the chillies on them might very well, so ornamental were they, have formed an exhibit in the more aesthetic portion of the show. Among flowering plants Class I. brought out a brilliantly varied collection of flowers in pots. Mr. Hay-Ellis, of the People's Park, and Purushotham Moodelly were the only competitors for roses, and each had a splendid array of roses in bloom on show. Government House and the Mr. Hon'ble Best and the Mr. Hon'ble Clogstoun were about the largest exhibitors of daintily coloured carnations, &c. Mr. W. Morgan's geraniums were much admired as were also a collection of the Hon'ble Mr. Clogstoun's begonias. Messrs. J. L. Walker and Cologstoun again were the only exhibitors to any extent of chrysanthemums, and both had on view a varied selection blooming to perfection. Violets, both double and single, were exhibited by Mr. Hay-Ellis and Srinivasa.

Mr. A. Grant's magnificent collection of heliotrope was one of the sights of the exhibition. In Class II. for annuals Mr. Baumann is a large and successful exhibitor, his collection of balsams and asters being particularly good. For cut flowers Mr. Ellison secures the first prize for the best specimen of cut flowers, H. E. Lady Wenlock gets the second prize. Mr. Eardley Norton secured the prize for hollyhocks and Mr. Baumann for a splendid collection of dahlias. In the big marquee a very conspicuous exhibit again is Mr. Steavenson's splendid trophy of ferns, while the Jaghirdar of Arnee and the Chepauk Park have on either side fine trophies of choice foliage plants, Mr. Eardley Norton's palms and dracænas are also very good exhibits. Rai Bahadur A. Thanakoti Mudelliar and the Hon'ble Mr. Rungiah Naidu have two handsome exhibits of generously coloured crotons. Many of Mr. Rungiah Naidu's plants are labelled "new varieties," one of which in a fit of egoism he has apparently named after himself. Unlike most discoverers in botany he is content with plain "Rungiah" and has not attempted to Latinise the name. The Hon'ble Mr. Boyson has exhibited a magnificent croton as a specimen of a single shrub grown in Madras. The Police again are the only exhibitors in Class IX, in which prizes are given for the best flowers and vegetables grown by Soldiers and the Police and Jail Department in Madras. The economic section possesses an interest for few of the visitors to the exhibition, but the male element who are smokers gradually but surely gravitate down to Messrs. Spencer and Company's booth where there is a tempting array of their numerous brands of Indian and Sumatra cigars while a few workers with dexterous fingers illustrate the process of manufacture, and turn out a neat well-rolled cigar while you wait. Messrs. Spencer & Co. have been very successful this year securing three medals, two for the best specimens of Dindigul and Lunka tobacco, respectively, and one for their excellent cheroots. We must not omit to mention a gigantic specimen of the victoria regia water-lily and leaf which were exhibited by Mirza Mahomed Ismail Khan Bahadur on behalf of H. H. the Nawab Begum of the Carnatic. The lily was 1 foot in diameter,

while the leaf was 8 feet in diameter. The plant from which these were taken originally came from the Agri-Horticultural Society's Gardens. On the whole, we believe, the general verdict is that the exhibition this year is a great success. H. E. the Governor's Band played a selection of music during this morning. Subjoined is a list of the prize winners in the various classes with the Judges remarks on the exhibits generally :—

Class I.—Flowers in Pots, exclusive of Annuals.

Judges.—Colonel Fane Sewell and D. A. J. Crombie, Esq.

Best general collection of not less than 20 varieties, one pot of each, Rs. 10—Chepauk Park.

Best collection of Roses of not less than 12 varieties, 1st prize, Rs. 15—Mr. C. J. Hay-Ellis.

2nd prize, Rs. 7—L. G. Purushotham Moodelly.

Best Verbenas, not less than 12 kinds, Rs. 5—Mr. J. L. Walker.

Best Carnations, Picotees, Pinks and Dianthus, not less than 12 varieties, 1st prize, Rs. 5—Hon. Mr. H. F. Clogstoun, C. S. I.

2nd prize, Rs. 2—The Hon'ble Mr. Justice Best.

Best collection of Creepers (Perennial), one pot of each, not less than 12 varieties, 1st prize, Rs. 10—Mr. C. J. Hay-Ellis.

2nd prize, Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Best Geraniums and Pelargoniums, not less than 6 varieties, Rs. 5—Mr. W. Morgan.

Best collection of Cannas, not less than 10 varieties, Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Best collection of Begonias in flower, not less than 8 varieties, Rs. 5—Hon'ble Mr. H. F. Clogstoun, C. S. I.

Best Chrysanthemums, 1st prize, Rs. 5—Hon. Mr. H. F. Clogstoun, C.S.I.

2nd prize, Rs. 2—Mr. J. L. Walker.

Best Violets, Rs. 3—Mr. C. J. Hay-Ellis.

Best Heliotropes, Rs. 3—Mr. Grant.

Best collection of Hibiscus, Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Judges' Remarks.—The Judge have the honour to report that on the whole they are of opinion that the exhibits at the show are up to the average. The roses were not so good as usual, the violets were poor. The pinks and dianthus were pretty good. The creepers were exceptionally good. There was nothing further deserving of special notice.

Class II.— Annuals grown in pots.

JUDGES.—J. M. Gleeson, Esq., and C. Slater, Esq.

Best collection of not less than 18 varieties, Rs. 10—no competition.

Best double Balsams, not less than 10 pots, 1st prize, Rs. 5—Mr. Baumann.

2nd prize, Rs. 2—T. G. Purushotham Moodelly.

Best Portulaccas, not less than 6 pots, Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Best Asters, not less than 12 pots, Rs. 5—Mr. Baumann.

Best Phloxes, not less than 12 pots, 1st prize, Rs. 5—The Hon'ble Mr. Justice Best.

2nd prize, Rs. 2—H. E. Lady Wenlock.

Best Creepers, not less than 8 varieties, Rs. 5—No competition—collection rather poor.

Best Petunias, not less than 6 pots, 1st prize, Rs. 5—B. Rungiah Chetty.

2nd prize, Rs. 2—H. E. Lady Wenlock.

Best double Zinnias, not less than 6 colours, Rs. 5—Mr. R. B. Mitchell.

JUDGES' REMARKS.—No. 1, No competition—very poor. No. 2, Both collections good. No. 3, Fair collection. No. 4, Very good. No. 5, Both collections good. No. 6, Rather poor. No. 7, Poor in varieties. No. 8, Exhibits good, a number of new varieties in the prize collection.

Class III.—Cut Flowers.

JUDGES.—Hon'ble Mr. J. Grose and C. Slater, Esq.

Best collection of choice Cut Flowers, 1st prize, Rs. 5—Mr. H. R. N. Ellison.

2nd prize, Rs. 3—H. E. Lady Wenlock.

Best Hollyhocks, not less than 12 spikes, Rs. 3—Mr. Eardly Norton.

Best Dahlias, not less than 6 varieties, Rs. 3—Mr. Bannerman.

Best collection of Cut Roses, Rs. 3—H. E. Lady Wenlock.

No remarks recorded.

Class IV—Ferns, &c.

JUDGES.—J. L. Walker, Esq., and Revd. R. B. Feast.

Best collection of Ferns, a silver medal or 1st prize, Rs. 20—Mr. Joseph Steavenson.

2nd prize, Rs. 10—Jaghirdar of Arnee.

Best grown Ferns, not less than 5 pots, Rs. 5—Mr. Joseph Steavenson.

Best Single Specimen Fern, Rs. 3—Mr. J. L. Walker.

Best Bulbous and Tuberous plants, not less than 6 varieties in flower Rs. 5—Rungiah Chetty.

Best collection of fine Foliage plants, not less than 20 varieties, and not more than 2 pots of each, 1st prize, Rs. 15—Chepauk Park.

2nd prize, Rs. 7—Jaghirdar of Arnee.

Best collection of Caladiums, only one plant of each variety to be exhibited, Rs. 7—Mr. Joseph Steavenson.

Best collection of Alocasias, only one plant of each variety, Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Best collection of Palms, Cycads, and other Palmaceous plants, not less than 10 varieties, Rs. 10—Mr. Eardley Norton.

Best collection of Crotons, not less than 15 varieties, 1st prize Rs. 10—Rai Bahadur A. Thanakoti Mudelliar.

2nd prize, Rs. 5—Hon. P. Rungiah Naidu.

Best collection of Dracænas, not less than 8 varieties, 1st prize Rs. 10—Mr. E. Norton.

2nd prize Rs. 5—Rai Bahadur A. Thanakoti Mudelliar.

Best single Shrub grown in Madras in the tub or pot in which it is exhibited, Rs. 5—Miss Willis.

Best Aralias and Panax, Rs. 5—Mr. J. Steavenson.

Best collection of Lycopodium and Selaginella, Rs. 5 - Mr. A. Grant.

Best collection of Anthuriums Rs. 5—P. Rungasawy Naidu.

Best collection of Coleus, Rs. 5—Mr. C. J. Hay-Ellis.

JUDGES REMARKS.—The general display in this class was in our opinion quite up to the average :—

Best collection of Ferns.—Mr. J. Steavenson's collection repeated its success of last year, and took the Silver Medal. With such a formidable competitor in the field it is scarcely to be wandered at that the exhibits in this class were few. The Jaghirdar of Arnee was awarded the second prize for a very creditable collection.

Best grown Ferns.—Here again Mr. J. Steavenson carried off the prize, the second best collection contains a remarkably fine specimen of the silver fern.

Best single specimen Fern.—Mr. J. L. Walker shewed a well grown specimen of " Adiantum Farleyense," which secured the prize.

Best bulbous and Tuberous plants.— The prize was awarded to Mr. B. Rungiah Chetty. There were only 2 competitors and neither of the collections were of conspicuous merit.

Fine foliage Plants.—The Chepauk Park collection took the first prize with a very fine and well arranged collection, the Jaghiredar of Arnee again taking a second prize.

Caladiums.—There were only 2 exhibits, both very good. Mr. Steavenson being in the opinion of the Judge the best.

Alocacias.—Rai Bahadur Thanakoti Moodelly's collection won the prize. There were only 2 competitors in this class.

Palms, &c.—Mr. Eardley Norton shewed a very good group.

Crotons, &c.—The two exhibits were exceedingly good the first prize, falling to Rai Bahadur Thanakoti Mudelliar, and the second to the Honorable P. Rungia Naidu.

Dracænas.—Both exhibits were good. Mr. Eardley Norton secured the first prize, and Rai Bahadur Thanakoti Mudelliar the second.

Best shingle shrub.—Mr. J. Willis was awarded the prize for a very handsome croton.

Aralias and Panax.—There was only one collection exhibited by Mr. J. Steavenson, but this contained a very large number of varieties and hence a prize was awarded.

Loycopodimus, &c.—There were two collections both creditable, and Mr. A. Grant was awarded the prize.

Anthuriums.—P. Rungasawy Naidu joined the prize for a good group.

Coleus.—There were only two exhibits both very good indeed, the prize was awarded to Mr. C. J. Hay-Ellis.

Class V.—Rare Plants.

JUDGES.—Colonel Fane Sewell and D. A. J. Crombie, Esq.

Best collection of any plants not previously exhibited, grown in the Madras Presidency or Mysore, Rs. 15—No. prize awarded.

JUDGES' REMARKS.—The Judges regret they are unable to award any prize to the exhibits under this class, nothing shown coming up to the merit for a prize.

Class VI.—Vegetables grown in Madras by Amateurs.

JUDGES.—W. Hamilton-Holmes, Esq., W. F. Emery, Esq., and Mahomed Sheriff Khan Bahadur.

Best Celery, not less than 5 stalks, Rs. 3—K. Ethirajulu Naidu.
Best Beetroot, not less than 6 roots, Rs. 2—Mr. A. Grant.
Best Turnips, not less than 6 roots, Rs. 2—H. E. Lord Wenlock.
Best Carrots, not less than 6 roots, Rs. 2—Mr. T. W. Laing.
Best Onions, not less than 12 bulbs, Rs. 2—Mr. T. W. Laing.
Best Cucumbers, not less than 6, Rs. 2—Parthasarathy Naidu.
Best Vegetable Marrows, not less than 6, Rs. 2—Rai Bahadur A. Thanakoti Mudelliar.
Best Yams, not less than 6, Rs. 2—Mr. E. A. S. Nicholas.
Best Tomatoes, not less than 12, Rs. 2—Adyar Orphanage.
Best Asparagus, Rs. 2—Mr. E. A. S. Nicholas.
Best collection of Salad plants, Rs. 4—Mr. A. Grant.
Best Peas, Rs. 2—Rev. E. Sell.
Best Brussels Sprouts, Rs. 2—Mr. A. Grant.
Best Arrowroot, Rs. 2—H. E. Lord Wenlock.
Best Tapioca, Rs. 2—Mr. E. A. S. Nicholas.
Best Lettuces, Rs. 2—Surgeon Captain Bannerman.
Best Knol-khol, 6 specimens, Rs. 2—Mr. E. A. S. Nicholas.
Best Jerusalem Artichokes, Rs. 2—Mr. T. W. Laing.
Best Chillies, Rs. 2—J. Chelvaranga Rajoo.
Best collection of Indian Vegetables, Rs. 3—Rai Bahadur A. Thanakoti Mudelliar.
Best collection of English Vegetables, Rs. 3—P. Streeramulu Naidu.
Best Radishes, Rs. 2—Mr. T. W. Laing.
Best Chillies and Capsicums grown in pots, Rs. 2—Mr. T. W. Laing.
Best Sweet herbs grown in pots, Rs. 3—Mr. A. Grant.

No remarks left by the Judges.

Class VII.—Vegetables (grown anywhere.)

OPEN ONLY TO MARKET GARDENERS.

JUDGES.—J. P. Nicholas, Esq., Rai Bahadur A. Thanakoti Mudelliar and Mahomed Nizam Uddin Khan Bhadur.

Celery, 6 stalks, 1st prize, Rs. 4—Ponnusawmy Doss. 2nd prize Rs. 2—Veerarajoo.
Knol-khol, 6 specimens, 1st prize, Rs. 3—Rudrappa. 2nd prize, Rs. 2—Kistnasawmy.
Beetroot, 6 roots, 1st prize, Rs. 3—Parthasarathy. 2nd prize, Rs. 2—Ponnusawmy Doss.
Carrots, 6 roots, 1st prize, Rs. 3—Rudrappa. 2nd prize, Rs. 2—Munisawmy.
Turnips, 6 roots, 1st prize, Rs. 3—Kundasawmy. 2nd prize Rs. 2—Venkatachellum.
Onions, 24 bulbs, 1st prize, Rs. 3—Kiatnasawmy. 2nd prize, Rs. 2—Yellappa.
Cabbages, 6 heads, 1st prize, Rs. 4—Kundasawmy. 2nd prize, Rs. 2—Venkatachellum.
Vegetable Marrows, 1st prize Rs. 3 Rudrappa. 2nd prize, Rs. 2 Kundasawmy
Cucumbers, 1st prize, Rs. 3—Munisawmy. 2nd prize, Rs. 2—Kundasawmy.
French Beans, 1st prize, Rs. 2—Rudrappa. 2nd prize, Rs. 1—Muthusawmy.
Kidney Beans, 1st prize, Rs. 2—Murugasen. 2nd prize, Rs. 1—Vurdappa.
Tomatoes, 1st prize, Rs. 3—Chinnasawmy. 2nd prize, Rs. 2—Mungaimamal.
Chillies, 1st prize, Rs. 3—Kundasawmy. 2nd prize, Rs. 2—Chinnasawmy.
Brinjals, 1st prize, Rs. 3—Rudrappa. 2nd prize, Rs. 2—Chinnasawmy.
Bandikai, 1st prize, Rs. 3—Murugasen. 2nd prize, Rs. 2—Parthasarathy.
Potatoes, (*a*) Large, Rs. 3—Parthasarthy.
Potatoes, (*b*) Small, Rs. 3—Murugasen.
Peas, 1st prize Rs. 3—Murugasen. 2nd prize, Rs. 2—Veeraragaven.
Best collection of Salad plants, prize Rs. 2—Venkatasawmy.
Lettuces, 1st prize, Rs. 2—Veeraragaven. 2nd prize, Rs. 1—Vulley Ammal
Cauliflowers, 1st prize, Rs. 3—Rudrappa. 2nd prize, Rs. 2—Parthasarathy.

JUDGES' REMARKS.—The exhibits in this class were decidedly better in quality and quantity than shown during the last 3 or 4 years. The vegetables grown in Madras, in spite of the climate, show favourably, but of course cannot compete with Bangalore products. We again have to remark that the Celery stalks are not sufficiently bleached, by "earthing up." There is no reason at all why this vegetable should not show perfectly white stalks, eight inches from the root.

Class VIII.—Fruits.

OPEN TO ALL.

JUDGES.—Col. T. O. Underwood, D. E. W. Leighton, Esq., and R. Branson, Esq.

Best Strawberries, Rs. 10—Ruddrappa.
Best Raspberries, Rs. 3—Erruppa.

Best Peaches, Rs. 9—Ruddrappa.
Best Apples, Rs. 8—Subbuammal.
Best Pears, Rs. 5—No competition.
Best Sweet Oranges, 24 specimens, Rs. 3—Rungasawmy Moodelly
Best Pumplemoses, 6 specimens, Rs. 2—Paramasiva Moodelly.
Best Grapes, 3 bunches, Rs. 5—Paramasiva Moodelly.
Best Sapodillas, 24 specimens, Rs. 3—Govindu.
Best Melons, 6 specimens, Rs. 3—Parthasarathy Naidu.
Best Plaintains, Rs. 3—Maduray Naicker.
Best Lemons, 12 specimens, Rs. 5—Sundara Naicker.
Best Limes, Rs. 3—Subbuammal.
Best Guavas, Rs. 3—Ruddrappa.
Best Citrons, Rs. 3—Paramasiva Moodelly.
Best collection of dried fruits, Rs. 5—Murugappa Naicker.

JUDGES' REMARKS.—We are of opinion that the show of fruit this year is very poor and the number of exhibitors small. The smallness of the show is probably due to the fact that competitors are not allowed to sell the fruit exhibited by them for the show outside, the barrier was large and the fruit exhibited there appeared to be very good. We think that local growers should have more encouragement and submit that separate prizes be awarded for local exhibitors, for as matters now stand only one prize is awarded for each exhibit and Bangalore exhibitors invariably carry off the prize. Madras gardeners are therefore not encouraged to exhibit for they find it impossible to compete with Bangalore gardeners as to the size and appearance of their exhibits. There was only one exhibitor of dried fruits, but his show was large and good, and we have therefore awarded him the prize.

Class IX.—Flowers and Vegetables.

JUDGES.—Colonel Fane Sewell and D. A. J. Crombie, Esq.

OPEN ONLY TO SOLDIERS, NON-COMMISSIONED AND WARRANT OFFICERS, THE POLICE AND JAIL DEPARTMENT IN MADRAS.

Best collection of Flowers in pots, 1st prize, Rs. 10—Mr. E. Prager "E" Division.

2nd prize, Rs. 5—Mr. H. M. Upshon "A" Division.

Best collection of Vegetables, 1st prize, Rs. 10—Mr. H. M. Upshon "A" Division.

2nd prize, Rs. 5—"A" II Division.

JUDGES' REMARKS.—The Judges are happy to report very favourably on the whole on three exhibits, the prize winners deserving much credit for their efforts.

EXTRA PRIZE LIST.

JUDGES.—W. S. Shaw, Esq., and F. Bone, Esq.

The Government having placed at the disposal of the Society a sum of Rs. 500, they have much pleasure in offering the following prizes, which will be open to the produce of the Madras Presidency, Hyderabad, Mysore, Coorg, Travancore, and Cochin :—

A gold medal for the best sample, and a silver medal for the second best sample of Tea of good quality, that is largely sold by retail within the prescribed area, and is so moderately priced as to be suited for general consumption—Thomas Stanes Esq., gold and silver medal.

N. B.—The samples exhibited shall be not less than 30 lbs. in weight, and competitors must sign and forward a declaration that they are the growers and preparers of the same, and that they have been grown since the last exhibition, and form part of a "break" of at least 1,000 lbs. The exhibits will be sent for valuation to a Tea Broker in Calcutta, and the prize awarded by the Judges in accordance with the Broker's Report.

A Silver Medal for the best cured Dindigul Tobacco.—Messrs. Spencer and Co.

A Silver Medal for the best cured Lunka Tobacco—Messrs. Spencer and Co.

A Silver Medal for the best Cheroots—Messrs. Spencer and Co.

A Silver Medal for the best Pipe Tobacco—No award.

N. B.—Each exhibit of Tobacco shall be of not less than 10 lbs. in weight; and each exhibit of Cheroots shall comprise 100 Cheroots of each of five different shapes, *i.e.*, 500 Cheroots in all. Each exhibit of Pipe Tobacco shall be of not less than 10 lbs. in weight, and ready for use. Exhibitors of Cheroots must state the price at which they are prepared to sell 10,000 Cheroots of each shape. Competitors must sign and forward a declaration that they are the growers or preparers of the exhibits.

Offers of prizes for Cotton are renewed, and a Silver Medal will be awarded for the best exhibits of Westerns, Tinnevelly and Coconada Cotton, respectively. Each exhibit shall consist of 75 lbs. of cleaned Cotton and 25 lbs. of Cotton in Kuppas, and shall represent the produce of a certain acreage certified to by the Village Munsif. The awards will be made by merchants appointed to be Judges at the Show.—no exhibitor.

A Silver Medal for the best sample of silk of not less than 1 lb. in weight—D. Ragaval Sau.

A Silver Medal for the best sample of Tussa silk of not less than 1 lb. in weight—D. Kunny Sau.

A Silver Medal for the best general collection of produce usually exported from Madras, each article to have its name and use given—C. Manickum Chetty.

A prize of 10 rupees for the best collection of Green Forage—His Excellency the Governor of Madras.

A Silver Medal for the best collection of Forest products, *e g.*, Gums, Oleo-resins, Wax, Dyes, &c.—C. Manickum Chetty.

A prize of 10 rupees for the best collection of cleaned Fibres—C. T. Moonesawmy Moodelly.

A Silver Medal for the best collection of economic plants—C. Manickum Chetty.

A prize of Rs. 16 from Cossipore Practical Institute of Horticulture, &c., Calcutta, for the best collection, Indian Drugs.—C. Manickum Chetty.

No remarks recorded.

NEW MART.

MESSRS. JARDINE SKINNER & Co.,
CALCUTTA, 1*st February*, 1894.

Dear Sirs,

We beg to hand you our report and valuations on the following samples of Tea from Madras Agri-Horticultural Society.

Your obedient servants,

THOS. MART & CO.
Brokers.

Marks & Tin Nos.	Quality.	Ex. ..... Valuation per lb.	Description.
		£ *s.* *d.*	
1	New Hope Estate	0 1 2	Small close black Pekoe leaf, fair tip, rather full brisk liquor little high fired.
2	,,	0 1 3	Open black Broken Pekoe fair tip, fully brisk useful liquor.
3	,,	0 0 10	Stylish dark Broken Souchong, full useful liquor.
4	Glendale Tea Estate	2*s.* to 2 2	Small stylish tippy Broken Pekoe, strong full good liquor.
5	,,	0 1 6	Small good tippy Pekoe leaf, pale brisk liquor, rather nice flavour.
6	,,	0 1 0	Stylish, Broken Pekoe Souchong, fair tip, brisk liquor, rather fine flavour, light.
7	Woodcote Tea Estate	0 1 4	Small good Pekoe kind leaf, rather broken, mixed with ends, full fruity.

These are generally very desirable Teas. The dry leaf is well made and has a stylish polished appearance. The liquors of No. 1-4 are of a full and very useful character. Those of 5-7 though rather light, have a delicate flavour and a fair amount of pungency.

The special thanks of the Society and the public are due to those gentlemen who by the largeness of their exhibits, contributed so much to the success of the Show.

The Society and the public are also much indebted to H. E. The Governor for the services of his Band, who played at the Gardens until 1 p.m., and for his tents, tables, carpets &c. The Inspector General of Ordnance, the Commissary General, the Commissioner of Police, the President Municipal Commission, the Director of Public Instruction, Messrs. Deschamps & Co., and the Secretaries of the Civil Orphan Asylum and the Military Female Asylum for the use of their tents, tables, benches, chairs and other necessaries.

Committee Members.—Dr. A. Bourne resigned his seat on the Committee on account of his departure to England.

Thanks to the Committee.—Read the following letter from Mr. J. M. Gleeson, Superintendent of the Society's Gardens, to the Honorary Secretary, dated 7th February, 1894:—

"I feel very grateful to you for your letter of the 5th instant. Allow me to thank you and Members of your Committee for the welcome addition to my pay".

Recorded.

Sand Binding Grass—A pound of seed of Ammophila arundinaria was purchased from Messrs. Sutton & Sons, and sent free of charge to Mr. W. Hamilton-Holmes, Madras, at his request.

Read also letter from Mr. W. H. Holmes, dated 30th January 1894, acknowledging with thanks the receipt of the seed, and adding that he will plant the seed and report the result in due course.

Recorded.

Annual Meeting—Resolved that the Annual Meeting of the Members of the Society be held on Saturday, 31st March.

Money Prize in place of Medals.—Read letters from C. Manicka Chetty and S. Kunnee Saw, dated respectively 3rd and 2nd March 1894, requesting money prize for 5 Silver Medals awarded for Economic plants, Forest produce, Export articles, Silk and Tussa Silk.

Resolved that Rs. 15 be given in lieu of medals to each of the applicants.

Financial statement for February 1894, read and passed.

G. M. J. MOORE, *Chairman.*

H. W. H. COX, *Hony. Secretary.*

Proceedings of the Madras Agri-Horticultural Society, for March, 1894, held on the 9th April, 1894.

PRESENT.

Colonel G. M. J. Moore, *Chairman.*

Mr. D. E. W. Leighton.	Colonel Fane Sewell.
Dr. E. Thurston.	Col. H. W. H. Cox, *Hon. Secy.*

Annual Report of the Survey operations in Bengal, during the year 1891-92.

Bulletin No. 30, of the Department of Land Records and Agriculture, Madras, on note on extraction of Agave americana fibre at Coimbatore, and No. 29 about the cultivation and manufacture of Ganja in Madras.

Delectus seminum quae Hortus Botanicus Imperialis Petropolitanus pro mutua commutatione offert 1893.

Annual Administration Report of the Forest Department, Madras Presidency, for the fifteen months ending 30th June, 1893.

I'llustration Horticole, Nos. 10, 11 & 12, of Vol. 7, 1893.

Kew Bulletin of Miscellaneous Information, No. 86, February, 1894, and No. 87, March, 1894.

The Indian Forester for March 1894, No. 3 of Vol. XX and Appendix.

Annual Report of the Agri-Horticultural Society of Burma for 1893.

The Tropical Agriculturist, No. 9, of Vol. XIII, March, 1894.

Journal of the Royal Horticultural Society for January, 1894.

List of seeds collected at the Royal Botanic Garden, Edinburgh, during 1893.

Proceedings of the Madras Government of Madras, No. 72, dated 26th January 1894, reviewing the report on the working of the special well Rules.

Annual Report of the Graaff-Reinet Botanic Gardens for 1893.

Administration Report of the Royal Botanic Gardens, Ceylon, 1893.

A list of Agricultural implements and machines tested in India up to 30th September 1893.

Vilmorin Andrieux and Cie's Catalogue of Seeds for 1894.

E. H. Krelage and Son's General Catalogue for 1894, No. 272-A.

C. H. Eldering and Son's wholesale Catalogue of Dutch Flower Roots for 1894.

Catalogue of Orchids, No. 485, of 10th February 1894 offered by John Cown and Co., Ld., Leverpool.

Acta Horti-Petropolitani, Vol. XIII, Part 1, 1893.

Memoranda on wheat crop for the season of 93-94 of the 28th December, 1894; winter Oil seeds crop of the season, 93-94, 28th December, 1893; Oil seeds crop of 93-94; Wheat crop for the season, 93-94, dated 9th March 1894; Rice crop of 1893 dated 15th March, 1894; Wheat crop in Berar, dated 1st March, 1894, and cotton crop of the year 93-94, dated 28th February, 1894, from the Government of India, Revenue and Agricultural Department.

The following contributions were made to the Gardens:—

The following seeds from Baron Ferd. von Mueller, K.C.M.G. Government Botanist, Melbourne:—

Psamma arenaria	Atriplex nummularia
Eucalyptus diversicolor	do prostratum
Boronia megastigma	do halimoides

Four ounces of Arabian Coffee seed from Thomas Stanes, Esq. Coonoor.

One packet of Atriplex nummularia seed from the Agri-Horticultural Society of India, Calcutta.

Seed of Japanese wine-berry, from Mr. N. Narasinga Row, Mangalore.

A packet of seed of Abutilon Ranadeii, from Mr. G. M. Woodrow, Poona.

The following is a list of the seeds collected during the month for distribution to members, Botanic Gardens, &c.,

Bauhinia acuminata	Duranta Plumieri
Sterculia fœtida	Peltophorum ferrugineum
Barleria involucrata	Diospyros, sp.
Cassia auriculata	Quassia amara
Bauhinia tomentosa	Sapindus fruticosus
Barleria lupulina	Pterospermum suberifolium
Santalum album	Dalbergia frondosa
Meyenia erecta	Inga Saman
Galphimia glandulosa	Nyctanthus arbor-tristis
Hiptage madablota	Pterocarpus santalinus
White flowered compositæ	Brunfelsia americana
Hibiscus Collinus	Sterculia alata
Bignonia suberosa	

Coffee Borers.—Read letter, 2nd April, 1894 from Mr. Thurston:—

"I submitted the specimens sent by the Revd. G. Richter with his report, to Mr. E. C. Cotes, Indian Museum, Calcutta, who writes as follows thereon: "The beetles belong to the genus *Xylotrechus* (Family Cerambycidæ) and are either identical with or exceedingly closely allied to the Coffee-borer *Xylotrechus quadrupes*. Your specimens differ slightly in markings from what the Coorg Planters' Association have sent me from Coffee bushes; but, as there is a good deal of individual variation; I am inclined to think we have to do with but one species. The grubs are likely to be the larvæ of the beetles. The two Hymenopterous insects are the male and female of species of Ichneumonidæ at present unnamed in the Indian Museum collection. The reason of Mr. Richter not finding the larvæ of the Ichneumonid is the fact that the Ichneumonid spends its larval existence completely buried in the tissues of its victim, in this case no doubt the borer grub."

Erratum.—For two kinds of Bengal gram in the contribution column, p. 62, ante, read, two kinds of Spanish gram.

Government Grant.—Read Proceedings of the Madras Government, Financial Department, dated 20th March 1894, No. 233 sanctioning the usual grant of five hundred rupees to enable the Society to offer prizes at their next Annual Exhibition for special products.

Resolved that a vote of thanks be recorded for the gift and communicated to Government.

Chairman.—Proposed by Colonel Fane Sewell and seconded by Dr. Thurston that Colonel G. M. J. Moore C.S.I., be elected Chairman of the Committee. Carried unanimously.

Donation.—Read letter from Rungummal, the widow of the late Ganabathy Moodelly,(Bill Collector and Office Assistant), dated Royapett, 20th March, 1894, requesting the Honorary Secretary for a small donation for the period served by her husband in the Society's gardens.

Gratuity of one month's pay, *viz.*, Rs. 10 granted.

Seeds and Plants sent.—As requested by Dr. Henry Trimen, Director, Royal Botanic Gardens, Peradeniya in his letter of the 7th March, 1894, 2 gunny bags containing in all 120lb of Arachis hypogæa (ground-nut) were forwarded per S. S. "Japan" on the 29th March, and also 12 plants and roots of Alocasia zebrina and 4 of Alocsaia metalica to the Agri-Horticultural Society of India in accordance with the Secretary's letter, dated 8th March, 1894.

Recorded.

A Root for Tanners use.—"Forest supplies of barks yielding tannin have become so reduced that commercial tanners have been led to seek other sources of supply. There is a plant native to the south-west region of the United States, the root of which has been used from time immemorial by Mexicans and Indians for tanning, and is now receiving the attention of tanners in the eastern states and in Europe. It is named "Canaigre" in the Mexican Vernacular and "Sour dock" by Americans. Its Botanical name is Rumex hymenosepalum. It is reported that gatherings of the wild root have been so

large during the last two years that it is difficult to obtain it in quantity, plantations recently made in New Mexico have proved profitable, $5 per ton, being paid for the green root which is worth $60 to $80 per ton, dried and delivered in Europe. The yield in cultivated land is said to reach 16 tons to the acre of green root. Canaigre has been grown in our Garden of Economic Plants for a number of years, and analysis of the root fully given in our report for 1890, show that the root is rich in tannin. The plant thrives in dry sandy soils, and our experiments show its success also on adobe when cultivated. To those who desire to test its growth and profitability we offer seed, reminding applicants, however, that it is a relative of "Sorrel" and "Yellow dock" and therefore, a weed which should be carefully handled, although our growth and seeding of it for several years does not disclose a disposition to rapid extension outside of its own area"—Bulletin, No. 98 University of California Agricultural Experiment Station, dated 15th December, 1892.

Fibre of Agave Americana.—Mr. Thurston exhibited samples of Fibre prepared at Coimbatore :—(*a*) by scraping dry leaves; (*b*) by maceration; and of the bamboo scrapes used in the former process, in illustration of a note by him, published as Bulletin, No. 30 of the department of Land Records and Agriculture, Madras. It is there stated that "the Fibre of *Agave americana* (from Coimbatore) has been very well reported on (in England), and is considered to be nearly as good as Manilla hemp.

"The extraction of the Fibre is performed by hand and no machinery is used. The Fibre is extracted by two methods, *viz.* (*a*) scraping and (*b*) maceration.

"(*a*) *Scraping*.—The leaves are cut, the sharp spines removed with a knife, and about six inches cut off from the top of the leaf. The leaf is then split longitudinally into four or five pieces, which are beaten with a wooden mallet and placed on a board 4′ × 4″ × 3″ held firmly by the toes. The pulp is then removed by means of a bamboo scraper, one edge of which is shaped in the form of a blade, and the Fibre dried by exposure to the sun.

"The Fibre obtained by this simple process without washing or bleaching is very clean and free from pulp. The staple is not, however, very long. It is made into thread, which is used in weaving grass mats.

"(*b*) *Maceration.*—As in the previous method of Fibre-extraction, the leaves are cut, and the spines removed. The whole leaf is then beaten with a wooden mallet, and thrown in bundles into tanks or wells, in which it is left to macerate for a fortnight to twenty days, or until the pulp is quite decomposed. The bundles are then taken out dried and bleached in the sun.

"The Fibre obtained by this process is longer than that obtained by scraping, but is not nearly so clean.

"A very large supply of the Fibre could be obtained, if a demand for it arose. At present it is sold in the bazaar at the rate of 2 annas per lb., but if a regular trade in it was started, the price would doubtless be reduced.

With reference to his statement, that "a very large supply of the Fibre could be obtained, if a demand for it arose. Mr. Thurston stated that the *Agave* is planted by the Madras Railway Company primarily as a protective hedge, and not as a Fibre-produces; and that, in the event of a demand for the Fibre arising, the cultivation of the plant would probably have to be extended.

Dr. Thurston is thanked for his interesting communication.

Financial statement for March 1894, and January to March, 1894.

Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Financial Statement for January to March, 1894.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st December, 1894.	1,662	12	0				Pay for fixed Establishment from January to March, 1894 ...	953	0	6			
Do. in hand as per receipt book on 31st Dec. 1894..	119	2	6				Cooly labour	206	1	0			
Do. expense book on 31st December, 1894 ..	79	6	2	1,861	4	8	Recoverable petty expense ...	104	8	0			
By sale of seed from January to March, 1894...	219	5	6				Non-recoverable do ...	58	6	7			
Do. plants do...	212	7	0				Seeds	84	0	6			
Do. sundries do...	201	14	0				Plants	42	0	6			
Do. admission ticket for Flower Show do...	836	14	0				Repairs to Fernery, Conservatory, &c.	127	12	0			
By loan of plants do...	171	9	3				Pots and manure	93	6	0			
Do. Subcn. from Members do...	563	0	0				Books, Periodicals & binding charges	77	11	8			
Do. Govt. monthly grant do...	750	0	0				Printing and advertising seeds plants	40	12	0			
Do. Govt. extra grant do...	500	0	0	3,455	1	9	Rain gauge	15	11	8			
							Flower Show, 1894	1,438	4	5			
											3,241	10	10
							Bank balance with Messrs. Binny & Co., on 31st March, 1894 ...	1,999	11	2			
							Do. in hand receipt book do ...	15	0	0			
							Do. expense book do ...	60	0	5	2,074	11	7
Total Rupees ...	...	..	...	5,316	6	5	Total Rupees ...	...	...	...	5,316	6	5

H. W. H. COX, *Honorary Secretary.*

Proceedings of the Agri-Horticultural Society of Madras, held on Monday, the 7th May, 1894.

APRIL, 1894.

PRESENT:

COLONEL G. M. J. MOORE, C.S.I. *(in the Chair)*.

HON'BLE MR. H. F. CLOGSTOUN, C.S.I.	HON'BLE MR. A. T. ARUNDEL, C.S.
J. L. WALKER, Esq.	W. H. HAMILTON-HOLMES, Esq.
COLONEL FANE SEWELL.	COLONEL H. W. H. COX, *(Hony. Secretary)*.

The following contributions were made to the Library:—

Records of the Geological Survey of India, Vol. XXVII, Part 1, 1894.

Supplement to the Leeward Island's Gazette on the remedies for Cane Disease, by C. A. Barrer, 1894.

Proceedings of the Madras Government on the Colonization of Pariahs, No. 159, dated 23rd February, 1894.

Bulletin of the Botanical Department, Jamaica, Vol. I, Part 1, New Series, January, 1894.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile Maurice, Nos. 2 and 3 of 1894.

The Tropical Agriculturist for April, 1894.

Memorandum on late-sown Gingelly of 1893-94 of the Department of Land Records and Agriculture, Madras, dated 16th April, 1894.

Memorandum on Oil seed crops and Wheat crop, dated Lucknow, 27th February, 1894.

Memoranda on the Oil seed crops of Bengal, Calcutta, 16th February, 1894, and Rabi food-grains and of Tobacco, Sugar-cane, &c., Calcutta, 2nd April, 1894, from Department of Land Records and Agriculture, Bengal.

Memoranda on the Wheat crop in the Bombay Presidency, dated 3rd March, 1894; Linseed and Rapeseed crops in the Bombay Presidency, dated 3rd March, 1894; Sesamum crop for the season, 1893-94, dated 6th January, 1894, from the Department of Land Records and Agriculture, Bombay.

The following contributions were made to the Gardens :—

6 Plants of Citrus japonica from the Superintendent, Government Botanic Gardens, Saharanpur, N. W. P.

2 Plants of Abutilon sp. from Mr. J. L. Walker, Madras.

Seeds of the undermentioned were collected during the month for distribution to Members and Botanic Gardens :—

Erythroxylon Coca.
Peltophorum ferrugineum.
Bauhinia acuminata.
Calophyllum inophyllum.
Cassia nodosa.
Adenanthera pavonina.
Bauhinia purpurea.
Bridelia retusa.
Sophora sp.
Myrospermum toluiferum.
Dracæna surculosa maculata.
Kigelia pinnata.
Cassia alata.
Sapindus emarginatus.
Quamoclit pennatum.
Ipomæa sp. seed mixed.
Ægle marmelos.
Cassia fistula.
Anogeissus acuminatus.
Brownea coccinea.
Helianthus cucumerifolius.

Revision of Prize List.—Resolved that the following additions and alterations be made in the Extra Prize List for 1895 :—

A Silver Medal for the best cured Tobacco.

Do. for the best pipe Tobacco made in Madras.

A prize of Rs. 15 for Tussa or other wild Silk not less than 1 lb.

A prize of Rs. 15 for Fibre plants and Fibres.

A prize of Rs. 10 for a collection of Medicinal plants.

Do. Rs. 10 for a collection of Dyes and Tanning materials and mordants.

The prize of a Silver Medal for Cotton has been withdrawn.

Resolved that the exhibits of Silk be sent to Calcutta to be judged in the same manner as has been done in the case of Tea.

Psamma arenaria or Marram Grass.—Read letter from Mr. W. Strachan, dated Karachi, 19th April, 1894, acknowledging the receipt of a packet of seed of Psamma arenaria from the Society, and adding that "it would be most valuable if it would grow on our shifting sands along the sea shores."

Recorded.

Committee Members.—Read letters from Messrs. Hamilton-Holmes and D. E. W. Leighton, dated 6th April, 1894, both accepting with pleasure office as members of the Committee of the Society.

Read also letter from the Hon'ble Mr. J. Grose, dated 5th April, 1894, stating that he will be unable to serve on the Committee this year.

Resolved that Mr. C. Slater be invited to join the Committee.

Financial statement for April, 1894.

Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, held on 4th June, 1894.

MAY, 1894.

PRESENT:

COLONEL G. J. M. MOORE, C.S.I., *(in the Chair)*.

HON'BLE MR. A.T. ARUNDEL, C.S.	COLONEL H. W. H. COX, *(Hony. Secretary)*.
MR. D. A. J. CROMBIE.	MR. C. SLATER.
MR. J. L. WALKER.	HON'BLE MR. H. F. CLOGSTOUN, C.S.I.
RAI BAHADUR A. THANAKOTI MUDELLIAR.	

The following contributions were made to the Library :—

Tropical Agriculturist for May, 1894, No. 11, Vol. XIII.

Annual Report of the Botanic Gardens, Graaff-Reinet, Cape Colony for 1893.

Graines offertes en échange par le Jardin Botanique de Saigon, Année 1894.

Catalogue Générale de la Société des Echanges Botaniques Silesienne, 1893-94.

Proceedings and Journal of the Agri-Horticultural Society of India for January to March, 1894.

Memorandum to the late Cotton crop in Bengal for the year, 1893-94 from the department of Land Records and Agriculture, Bengal.

Memoranda on Linseed crop for Season 1893-94, dated 15th December, 1893; Linseed crop of the Central Provinces, dated 28th February, 1893; Wheat crop, Season 1894, dated 27th February, 1894; Wheat crop of the Central Provinces, Season 1893-94, dated 15th December, 1893, from the Department of Land Records and Agriculture, Central Provinces.

Memoranda on the Cotton crop of the Punjab, dated 11th December, 1893; Wheat crop, dated 18th December, 1893; Oil seeds crop, dated 18th December, 1893; Wheat crop, dated 27th February, 1894; Oil seeds crop of the Punjab for 1893-94, dated 27th February, 1894, from the Department of Land Records and Agriculture, Punjab.

Proceedings of the Mysore Government, dated 25th April, 1894, approving of Mr. Rickett's suggestions about Viticulture.

The following contributions were made to the Gardens :—

2 lb. of Sterculia alata, and 5 lb. Swietenia macrophylla seed from the Royal Botanic Gardens, Calcutta.

65 Varieties of Chrysanthemum plants from the Government Agri-Horticultural Gardens, Lahore.

A bag of Nepaul Chilli seed from Mrs. Wylie, Nepaul.

A box containing Burmese Orchids from Mr. J. N. Johannes, Rangoon.

Thirteen plants of Achimenes of varieties from the Honorary Secretary, Agri-Horticultural Society of India, Calcutta.

Four seeds of Hyphæne thebaica, and a packet of Crescentia Cujete from W. Strachans, Esq., Karachi.

Three packets of Eucalyptus microcorys from Baron Ferd Von Mueller, K. C. M. G., Melbourne.

Seed of Ficus mysorensis and F. infectanea from Mr. J. H. Stephen, Bangalore.

The following is a list of the seeds collected in the Gardens :—

Anogeissus acuminata.
Cordia tectonæfolia.
Hibiscus Collinus.
Myrospermum toluiferum.
Pterocarpus santalinus.
Pterospermum suberifolium.
Sterculia fœtida.
Hiptage Madablota.
Phœnix farinifera.
Spathodea campanulata.
Holmskioldia sanguinea.
Erythroxylon Coca.
Cassia nodosa.
Cæsalpinia Sappan.
Dracæna surculosa maculata.
Bombax malabaricum.
Eriodendron anfractuosum.
Brownea coccinea.

Plants to Port Blair.— A wardian case containing the undermentioned plants were forwarded to Mr. E. H. Mann, Port Blair, per S. S. " Shajehan" which sailed on the 7th May, 1894.

2 Grevillea robusta.
2 Artocarpus incisa.
2 Bambusa siamensis.
2 Linum trigynum.
2 Yucca quadricolor.
2 Do. recurva pendula.
2 Holmskioldia sanguinea.
2 Erythroxylon Coca.
2 Aristolochia Duchartii.
1 Sophora interrupta.
1 Do. sp.
2 Clitoria Plumieri.
1 Peltophorum ferrugineum.
1 Roupellia grata.

Read letter from Mrs. Wylie, dated Nepaul Residency, 24th April, 1894 :—

" In compliance with your request contained in your letter of the 10th instant, I have much pleasure in sending you by parcel post to-day, prepaid, 1 lb. of Nepaul Chilli seeds or rather pods. I am sending the pods as I think the seeds will be more likely to travel safely in that way.

" I shall be glad of any seeds you can send me in exchange either trees, shrubs, ferns, palms, grasses or flowers.

"We have an elevation here of 5,000 ft., a good climate, abundant water supply and fertile soil, so the conditions are most favourable for Agricultural and Horticultural experiments.

"I grew Rhea luxurians with marked success last year, and am increasing the area under cultivation this year as the grass is so eagerly eaten by cows, sheep, horses, &c."

Seed of Nepaul Chilli received, a few packets of tree and shrub seeds were forwarded in exchange.

Recorded

Committee Member.—Read letter from Mr. C. Slater, dated 9th May, 1894, accepting with pleasure the office on the Committee.

Recorded.

Financial statement for May, 1894.

Read and passed.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, held on 2nd July, 1894.

JUNE, 1894.

PRESENT :

MR. W. HAMILTON-HOLMES.
RAI BAHADUR A. THANAKOTI MUDELLIAR.
MR. REDDY BRANSON.
HON'BLE MR. T. ARUNDEL, C.S.
COLONEL G. J. M. MOORE, C.S.I. *(in the Chair).*
„ H. W. H. COX, *(Honorary Secretary).*

The following contributions were made to the Library :—

Annual Report on the Survey Operations in Bengal, during 1892-93. Report on Natal Botanic Gardens, for 1893.

Journal of the Royal Horticultural Society, Chiswick, January, 1894, Vol. XVI, parts 2 and 3.

Report on the Agricultural Operations, N. W. Provinces and Oudh, for 1893.

Agricultural Statistics of the Lower Provinces of Bengal for 1892-93.

Annual Report of the Director of the Department of Land Records, Bengal on Settlement for 1893.

Administration Reports of the Royal Botanic Gardens, Peradeniya, Ceylon for 1893.

Report on the operations of the Department of Land Records and Agriculture, N. W. P. and Oudh for 1893.

The Indian Forester for April, and May, 1894 with Appendices.

Kew Bulletin of Miscellaneous Information for April and May, 1894, Nos. 88 and 89, respectively.

Tropical Agriculturist, Vol. XIII, No. 12, July, 1894.

The Forest Trees of Mysore and Coorg by J. Cameron, F. L. S. Bangalore, 3rd Edition, 1894.

Bulletin of the Botanical Department, Jamaica, Vol. I, Part 2.

Catalogue of Plants obtainable at the Government Agri-Horticultural Gardens, Lahore, 1894.

Bulletin van het Koloniaal Museum te Haarlem, December, 1893 and March, 1894.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile, Maurice Nos. 4 and 5, 1894.

American Journal of Pharmacy No. 5 of Vol. 66 on Myrica Nagi by David Hooper, 1894.

First Annual Report of the Agricultural Chemist to the Government of India, dated Dehra Dun, 1st April, 1894.

Memoranda on Wheat crop in Berar; Linseed in Berar, crop for the season, Winter Oil seeds crop of 1893-94 dated Simla, 22nd May, 4th June and 8th June 1894 respectively Wheat crop of the Punjab and Rapeseed crop dated Lahore, 12th May, 1894, Wheat crop of the N. W. P. and Oudh and Linseed and Rapeseed crop dated Lucknow, 15th May 1894; Linseed and Rapeseed crops for 1893-94; Wheat crop dated Poona 22nd May, 1894; Linseed crop dated Pachmarhi 11th May, 1894, and Oil seed crops of Bengal and Wheat crop of 1893-94, dated Calcutta, 14th May, 1894.

Annual Report of the Department of Agriculture, Brisbane, for the year 1892-93.

Bulletin No. 31 of the Department of Land Records and Agriculture, Madras on the care and mangement of Farm manure in S. India.

Bulletin of the University of California, Agricultural Experiment Station, Berkeley, April, 1894.

The following contributions were made to the Gardens:—

One packet of Nepaul Chilli seed from W. Gollan Esq., Saharanpur, N. W. P.

Seed of Erythrina vespertileo from Dr. Henry Trimen, Peradeniya.

One small box containing seed of Coffea stenophylla from W. T. Thiselton Dyer, Esq., Director, Royal Gardens, Kew.

4 Dozen Plants and 100 seeds of Ptychoraphis augusta from Mr. E. H. Man, Port Blair.

Swietenia macrophylla.—Mr. T. J. Ferguson in his letter dated 13th June, 1894, informs that all the seed of Swietenia macrophylla received from the Society's Gardens grew very quickly and that he is having the plants put out at Calicut and Wynaad.

Recorded.

Coffea stenophylla.—A small box of seed of Coffea stenophylla was received from the Royal Gardens, Kew, a small quantity of which sown in the gardens and the rest distributed for experimental cultivation to the undermentioned, *viz*:—

Mrs. Munro, Peermaad.
W. Gollan, Esq., Saharanpur.
Revd. G. Richter, Mercara.
T. J. Ferguson, Esq., Calicut.
J. Cameron, Esq., Bangalore.
G. M. Woodrow, Esq., Poona.
W. Hamilton-Holmes, Esq., Madras.

Appended is an extract from the Kew Bulletin of miscellaneous information for July, 1893, p. 167.

The narrow leaved "wild," "bush," or "native coffee," is sometimes found wild in the hills, and is more often cultivated by the natives than the Liberian. It grows very freely, and appears to yield quite as much as the Liberian, but it is somewhat longer in coming into bearing. Both the natives and French traders at Freetown say that it has a superior flavour, and prefer it to the Liberian. In fact, latterly, a certain amount has been exported to a wholesale French dealer who is said to sell it at 4 francs 50 centimes a lb. as "best Mocha:" considering that it is worth in Freetown about 6d. a lb., this should be a fairly profitable trade, and a trial shipment should be made by the English merchants to find out exactly what the market value in Liverpool would be. The plant appears to thrive best on the higher hills about Sierra Leone, on gneissose or granitic soil, and can be grown from 500 to 2,000 feet. Probably it may be grown both above and below these limits.

Recorded.

Plants from Andamans.—Read letter from Mr. E. H. Mann, dated 12th June, forwarding a wardian case containing 4 dozen plants and 100 seeds of Ptychoraphis augusta.

The plants were received in good order.

Resolved that the Hon. Secy. be directed to thank Mr. Mann for his present and many previous useful and welcome contributions to the Society.

Financial statement for June and April to June, 1894.

Read and passed.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Honorary Secretary.

Financial Statement from April to June, 1894.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st March, 1894...	1,999	11	2				Fixed Establishment from April to June, 1894 ...	990	4	11			
Do. in hand receipt book on 31st March, 1894...	15	0	0				Cooly labour for sweeping, pumping water &c. ...	171	4	0			
Do. in hand expense Acct., on 31st March, 1894 ..	60	0	5	2,074	11	7	Red Hills water supplied to the gardens ...	65	1	9			
By sale of seeds from April to June, 1894...	115	1	0				1 set of ½ inch Steel Punches ...	47	9	8			
Do. plants do...	170	9	0				Pots purchased ...	54	7	0			
Do. sundries do...	168	12	0				Seeds & plants from Nursery men.	81	3	0			
Do. loan of plants do ..	15	0	0				New cistern built for nursery use.	42	15	0			
Do. Flower Show admission ticket ...	2	0	0				Printing charges for Proceedings, &c	76	14	0			
By Subscription from Members ...	536	0	0				Books purchased & binding charges	20	14	0			
By Govt. grant do...	750	0	0				Award of Prizes at Flower Show '94	22	0	0			
By extra Govt. grant for Flower Show ...	500	0	0	2,257	6	0	Roofing Conservatory with tarred, bamboo tatties ...	71	2	6			
							Petty expenses such as rail charges stamps, string, baskets' &c. ...	270	5	6	1,914	1	4
							Balance with Messrs. Binny & Co.,* on 30th June, 1894 ...	2,358	3	9			
							Do. in hand receipt book do ...	17	6	0			
							Do. ,, expense book do ...	42	6	6	2,418	0	3
Total Rupees ...	...	...	...	4,332	1	7	Total Rupees ...	...	...	...	4,332	1	7

* Less 1¼ Re to be debited by Messrs. Binny & Co. for postage on letters, &c.

Agri-Horticultural Society, Madras, 1*st July*, 1894.

H. W. H. COX, *Honorary Secretary.*

Proceedings of the Madras Agri-Horticultural Society, held on the 6th August, 1894.

JULY, 1894.

PRESENT :

Colonel G. M. J. Moore, C.S.I., *(in the Chair.)*

D. A. J. Crombie, Esq.
Rai Bahadur A. Thanakoti Mudelliar.
D. E. W. Leighton, Esq.
Colonel H. W. H. Cox, *Honorary Secretary.*

The following contributions were made to the Library :—

The Flora of British India, by Sir J. D. Hooker, C.B., &c., Vol. VI, Part 4, from the Government of Madras.

Revue Agricole, et Journal de la Chambre D'Agriculture, de L'Ile Maurice No. 6, Juin 1894.

Bulletin of the Department of Agriculture, Brisbane, No. 2, (second series) March, 1894 on Rice growing.

Index to the Natural Orders and Genera in Hooker's Indian Flora (Parts I to XIX), by J. P. Fiddian, M.A., I.C.S., 1894, two copies.

Records of the Geological Survey of India, Vol. XXVII, Part 2, 1894.

Kew Bulletin of Miscellaneous Information, No. 90, June, 1894, and Appendix II of 1894.

Memorandum on the Resources of British India, by George Watt, M.D., &c., 1894.

The Indian Forester, Vol. XIX, Nos. 3, 8, 9, 11, and 12, and No. 6 of Vol. XX.

Bulletin of the Botanical Department, Jamaica, Vol. I, Parts 3 and 4, New Series.

Proceedings of the Madras Government, Nos. 444, 444a, dated 26th June, 1894, reviewing the Report of the Madras Botanic Gardens for the year 1893-94.

Report on the Road-side Arboriculture in Central Provinces, during 1892-93.

Memorandum on the first forecast of the Jute crop in Bengal for 1894, from the Department of Land Records and Agriculture, Bengal.

The following contributions were made to the Gardens :—

Seed of Caryota urens from the Director, Botanic Gardens, British Guiana.

Seed of Phœnix acaulis from Mr. G. M. Woodrow, College of Science, Poona.

Seed of Bambusa arundinacea (1lb), Swietenia Mahogani (5lb) and 2 small bags of Bambusa Oliveriana from the Royal Botanic Gardens, Calcutta.

Seeds of the undermentioned from Baron Ferd, von. Mueller, Government Botanist, Melbourne.

Atriplex nummularia.
,, vesicarium.
,, halimoides.
Brachychiton paradoxus.
Casuarina sp.
Callitris verrucosa.
Cassia eremophila.
Doryanthes Palmeri.
Eucalyptus Stuartiana.
,, leucoxylon.
,, amygdalina.
,, melliodora.
,, polyanthema.
Eucalyptus rostrata.
,, Gunni.
,, goniocalyx.
,, macrorhyncha.
Gmelina Leichhardtii.
Macrozamia spiralis.
Psamma arenaria.
Vitis Labrusca var.
"Concord" (American grape vine)
Nardoo-Marsilea sp.
(Swamp plant of the aborigenes),
Xanthorrhœa Preissii.

Seed of Asparagus plumosus, from T. J. Ferguson, Esq., Calicut.

Seed of Morus serrata, from W. Hamilton Holmes, Esq., Madras.

The Superintendent submits the following list of plants now available for distribution to Members :—

Abroma augusta
Archontophœnix Cunninghamii
Asparagus plumosus
Amphilophium Mutisii
Aristolochia Duchartii
Do elegans
Bauhinia Hookeri
Bambusa siamensis
Casuarina humilis
Cassia floribunda
Corypha elata
Canella alba
Clerodendron tomentosum
Ficus javanica
,, elastica
Grevillea robusta
Guiana Pepper
Kentia Wendlandtiana
Livistona rotunda
Malpighia glabra
Myroxylon toluiferum
Natal Compositæ
Morus serrata
Ptychosperma McArthurü
Pterospermum Heyneanum
Ptychoraphis augusta
Quassia amara
Solanum Seaforthianum
Sophora Sp.
Stephanotis floribunda
Yucca quadricolor
,, recurva pendula.

Seeds.—Flower and Vegetable seeds were received during July 1894, for subscribers and sale from Messrs Vilmorin Andrieux & Co. and Sutton & Sons, respectively. The seeds, have, as usual, been tested by the Superintendent and found good.

Albizzia moluccana.—Read letter from the Director of the Government Botanic Gardens, Buitenzorg, Java, dated 14th June, 1894, advising despatch of a box of Albizzia moluccana seed per S. S. *Columbien*.

The seed was received safely.

Rain gauge stand.—Read letter from the Superintendent of the School of Arts, dated 5th July, 1894, forwarding a sketch of the stand to be made in terra cotta. The cost of the stand will be from Rs. 30 to Rs. 40 according to design.

The Superintendent of the School of Arts will be requested to make a square stand of the design sent in.

The stand will be set up on the lawn between the large and small Fern houses.

Mamey or Mammee Apple.—Mammea americana, order Guttiferæ, is a native of W. Indies. It grows to be a tree 40 to 60 feet in height. The fruit is yellow, described in some books as the size of a cannon ball and in others as attaining the size of a child's head. The outer rind and the pulp which immediately surrounds the seeds are very bitter, the intermediate flesh resembling that of the finest apricot, of considerable consistency and very fragrant and delicious. The seeds, often as large as hen's eggs, are used as an anthelmintic. Eau de Creole,—an aromatic liquor—is distilled from the flowers of the species. Three young plants from seed received from the Director, Botanical Gardens, Jamaica, in January last, now exhibited, will be planted out as soon as the season permits.

Rumex hymenosepalus.—Read the following extract from the British Trade Journal, dated 1st July, 1894, Page 313.

Canaigre, the new material for tanning, forms the subject of an official report to the United States Government from Chemnitz, the writer being Mr. J. C. Monaghan, who states that he has visited the tanning schools at Freiburg and Tharandt, where it has been tested as a substitute for barks in tanning. German chemists sent for canaigre and subjected it to rigid, careful, comparative analyses. The first efforts to find out the value of canaigre for tanning failed because the tests were made from the green plant. Still, so good were the results, that a Scotch firm offered to take 10,000 tons yearly if it could be sent for $40 per ton. Nothing came of the offer. W. Eitner, director of Vienna's Experimental Station for the leather industry, took up the matter, made original experiments, and gave the facts to the world in a small pamphlet. He says canaigre is especially suited to upper, saddlers', and fancy leathers. He said further that 30 marks ($7·25) per 100 kilograms (220 pounds), delivered in Vienna, would be a moderate price. He has only words of praise for the new article. So, too, the tanning school at Freiburg. The value of canaigre as a tanning medium

is settled; the only question now is to get enough at satisfactory prices. The plant is native to many parts of America. It has long been known in Mexico, both for its tanning and medicinal properties. It grows well in Mexico, New Mexico, Texas, both Californias, Utah, and in the Indian Territory. In these places it appears in February, just after the rainy season, ripens rapidly, and is ready to harvest at the end of May. Sometimes it begins to grow in the fall, continues growing during the winter—of course, in countries where the winter is not severe—and gives in the spring a very strong plant.

The plant has seed and root, but is reproduced from the latter, because no experiments as yet have succeeded in doing much with the seeds. The roots yield the most tannic acid. Their growth depends mostly on soil and rain. The old roots, hard as wood and almost black, are especially rich in tannic acid. The stalks, stems, and leaves have tanning material too—enough to pay for harvesting. The cell juice in roots and leaves gives a pronounced reaction when touched with iron sulphate or double chromic acid kali. Touch a thin cut in the root with either of these reactionary agents and a precipitation takes place as soon as the cell juice is met. Age adds to the roots an excellent colouring essence, as well as tanning material. [The report includes a table showing that the canaigre from one to two years old was richest in tanning stuff in the samples from loose loam soil near Florence, from sandy soil in the same district, and from sandy soil on the banks of the Salt River. Angra Fria and Hassyampa canaigre also gave good results—the average of the total being 30·5 per cent. of tanning material.] Analyses of New Mexican canaigre gave about the same results. The one year roots yield from 20 to 25 per cent., the older roots 25 to 40 per cent. Fresh, the canaigre contains (average) 66 per cent. of water; two months old, 58 per cent.; one year old, 32 per cent.; dry, 8 per cent. Thus three pounds of fresh yield one pound of dry—30 per cent. of tannin. One centner (112 lbs.) of dry roots yield 45 pounds of extract with 66 per cent. of tannin; hence six centners of fresh yield two centners of dry—66 per cent. of tannin. Further, out of six centners of fresh one gets two centners of dry or one centner of extract. By taking the extract from roots and leaves where it grows much money might be saved and losses due to transport spared. The refuse could be used to burn or as cattle fodder, for which purpose it equals wheat straw. In extracting the tannin it is best to cut up the roots and to use a diffusion method similar to that used in extracting sugar from cane or beets. It is necessary to use copper kettles, as the canaigre influences, and is influenced by, iron. It is good, also, when extracting by means of lye and when steaming to use vacuum pans, otherwise the tannic acid runs the risk of going over into gallic acid. By steaming under small pressure there is no loss of tannin, and one gets an excellent extract of a bright colour, easily soluble in water.

The demand for tannin all over the world is very large. In every continent new tannin-containing plants are being sought. A fear has been felt for some time that with the constantly increasing demand the present sources of supply must soon run out. Most American leathers are tanned with oak and hemlock barks and extracts. The supply cannot last for ever. It is running down fast. Europe buys large quantities of the oak and hemlock, the best known barks. Even America, with its almost boundless forests of oak and hemlock, imports tannin in large quantities. In 1891 there were imported 15,000 tons of gambier (300,000 centner), worth $1,500,000. A centner of canaigre extract equals a centner of gambier; besides, it has colouring and finishing qualities, as above indicated, fitting it for special needs. One million eight hundred thousand centners of canaigre could keep out the 300,000 centners of gambier. Many practical tanners say gambier must go, that canaigre is destined soon to replace it. Large quantities are already finding their way into the world's markets and are being warmly welcomed.

Two experiments made by Dr. von Schroeder gave the following:—

Components.	No. 1.	No. 2.
Water	11	14·69
Tannin	34·91	27·72
Dissolvable non-tannin stuff	18·14	9·4
Dissolvable mineral matter	1·97	2·13
Undissolvable parts	33·98	46·06
TOTAL...	100	100

Dr. von Schroeder goes on to say that canaigre is rich in tannin; that it dissolves and gives out its acid, even in cold water; and that which it does not give out can easily be got out by hot water or steam extraction. By grinding the dry roots or plant one gets a very good material to mix with tanning barks—oak, hemlock &c. Canaigre gives leather a soft, bright colour, often a clear bright orange. The leather comes out full, smooth, and with a good grain. Dr. von Schroeder agress with the Vienna chemist that canaigre is especially suited to upper, saddler, and fancy leathers. He says it is one of the very best materials for uppers, and that it is also well suited to other kinds. He is very enthusiastic about it. Its large amount of tannin, the ease with which it dissolves in water, the presence of sufficient acid-producing stuff, and the beautiful colour, touch, and grain that it gives commend it. If it is possible to produce canaigre in America in large quantities at fair prices, it will certainly sell, not only here, but all over the world. He says investigations made by himself resulted in showing that the centner (112 lbs.), inclusive of freight, costs the tanner 15 to 16 marks ($3·60 to $3·90). This, at an average of 28 per cent. of tannin, gives it to the tanneries here at 55 pfennigs (13 cents) per pound. This is much too much, and precludes importation.

Recorded.

Exchange of Publications.—Read letter from Mr. A. C. True, Director of the Department of Agriculture, Experimental Station, Washington, dated 4th June, 1894, requesting information regarding our institution and informing that he has sent us the first number of the current volume of the Experimental Station Record, a monthly publication which contains abstracts of all the publications of the American Experiment Stations and the United States Department of Agriculture and desires that we send our publications in exchange.

Approved.

Morus serrata.—Young plants raised from seed kindly sent by Mr. W. Hamilton Holmes on the 7th May, 1894 were exhibited. See page 72 ante. for particulars of culture as reported by Mr. Nitya G. Mukerji, Bengal Agricultural Department.

Financial Statement for July, 1894, read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, held on 3rd September, 1894.

AUGUST 1894.

PRESENT:

Colonel G. M. J. Moore, C.S.I., *(in the Chair.)*

D. A. J. Crombie, Esq.
E. Thurston, Esq.
J. L. Walker, Esq.
D. E. W. Leighton, Esq.
Colonel H. W. H. Cox,
Honorary Secretary.

The following contributions were made to the Library:—

Kew Bulletin of Miscellaneous Information No. 91 for July, 1894.

Bulletin van het Koloniaal Museum te Haarlem, Mei, 1894.

Indian Forester Vol. XX, No. 7, July, 1894, and appendix series by John Nisbet, Esq.

Hand Book of the Flora of Ceylon by Dr. Trimen, part II, 1894, and plates XXVI—L.

Report on the Agricultural work in the Botanical Gardens, British Guiana for the years 1891-92.

Proceedings of the Madras Government Nos. 481, 481a, 481b and 481c reviewing Annual Report on the Government Cinchona Department, Nilgiris; and 444 and 444a, reviewing Report on the administration of the Government Botanical Department, Nilgiris.

Plantes Vivantes offertes en échange aux jardins Botaniques par le Muséum D'Histoire Naturelle de Paris, 1894.

Memoranda on the first sowings of cotton for 1894-95 and early Gingelly of 1894-95 each dated Madras, 11th August, 1894; Wheat crop in Berar, Sesamum crop in Berar, each dated Simla, 16th August, 1894; note on the Rice crop of Burma for 1893-94 and supplementary note on Rice crop each dated Rangoon 3rd August, 1894; and first forecast of the Indigo crop of the N. W. P. and Oudh, for 1894, dated Lucknow, 13th July, 1894.

Note on crop experiments carried out in Assam during the year 1893-94.

Vilmorin Andrieux & Co.'s seed list of flowers bulbs &c., for 1894-95.

The following contributions were made to the Gardens:—

A packet of seed of Euryale ferox and a bag of Phœnix acaulis seed from the Royal Botanic Gardens, Calcutta.

Seeds of the undermentioned plants and trees from Baron Ferd. Von Mueller, K. C. M. G., Government Botanist, Melbourne, (a second collection.)

Acacia pycnantha
" dealbata
" mollissima
Atriplex halimoides
" prostratum
" spongiosum
" vesicarium
Brachychiton paradoxus
Callitris verrucosa
Casuarina sp.
Dendrocalamus membranaceus
Doryanthes palmeri
Eucalyptus 9 species
Gmelina Leichhardtii
Nardoo-Marsilea sp.
Vitis labrusca (American grape vine)
Xanthorrhœa Preissii.

Asparagus plumosus seed from T. J. Ferguson, Esq., Calicut.

Varieties of ferns (in all 30 plants) from Mrs. Munro, Peermaad.

The undermentioned seeds from the Director, Botanic Gardens, Jamaica :—

Artocarpus integrifolia	Cocos flexuosa
Archontophœnix Cunninghamii	Gouania domingensis
Caryota Cumingii	Ipomæa quinquefolia
Cedrela odorata	

Caryota urens (4lb of seed) from the Principal of the Medical College, Madras.

Seeds of the undermentioned from Messrs and Damman Co, Naples.

Helianthus 11 varieties	Gaillardia 2 vars.
Petunia hybrida 3 vars.	Zinnia 2 vars.
Coleus hybrid 2 vars.	

Seed and plant exchange—From January to August 1894, several packets of seeds of trees and shrubs and plants were forwarded to Royal Gardens, Kew; Botanic Gardens, at Melbourne, Java, Bangalore, Calcutta, Durban, Jamaica, Trinidad, George Town, Adelaide, Saigon, Grenada, Graff Reinet, Pamplemousses, Saint Petersburgh, Rockampton, British Honduras, Hobart Town, and also the A. H. Society of India, Oodeypore Gardens, Messrs Damman Co., Naples; Mr. T. J. Ferguson, Calicut ; Mr. W. H. Holmes, Madras, The Consulting Architect to the Government of Madras ; The Honorary Secretary Public Gardens, Trevandrum ; Mr. Maries at Gwalior; Mr. Woodrow, Poona ; Mrs. Munro, Peermaad ; Revd. Richter, Coorg; Mr. W. Gollan, Saharanpur ; Revd. E.H. Johnson D.D. Chester, Pennsylvania ; Mr. J. Beck, Morvi ; Mr. Ridley, Lucknow ; Senõr Charles Thays, Buenos Ayres ; Hon'ble M. R. Wylie, Nepaul ; Horticultural Gardens, Lahore ; E. H. Hilgard, Esq., California ; Mr. E. H. Mann, Port Blair ; W. S. Crawford, Sucklaspur ; Mr. W. Strachans, Karachi and Mr. McGeorge, Washington, U. S. A.

Agave rigida planted.—During the month 52 young plants of Agave rigida var. Sisalana were planted in the ground next to the nursery. The young plants are about a foot high each with 7 to 8 leaves, each.

Recorded.

Financial Statement for August 1894. Read and passed.

Proceedings of the Agri-Horticultural Society, Madras.

September, 1894.

No Meeting of the Committee was held in October but the following papers were passed in circulation to the undermentioned :—

Hon'ble Mr. A. T. Arundel,	Col. Fane Sewell.
R. Branson, Esq.	C. Slater, Esq.
D. E. W. Leighton, Esq.	Rao Bahadur A. Thanakoti Mudelliar
Col. H. W. H. Cox. *(Honorary Secretary.)*	Edgar Thurston, Esq.
	J. L. Walker, Esq.

Colonel G. M. J. Moore, C.S.I. *(Chairman.)*

The following contributions were made to the Library during the month :—

Proceedings of the Royal Colonial Institute for 1893-94 (Vol. XXV 1894.)
Records of the Geological Survey of India, Vol. XXVII, part 3, 1894.
Bulletin van het Koloniaal Museum te Haarlem, July, 1894.
Tropical Agriculturist Vol. XIV No. 2, August, 1894.
Bulletin of the Botanical Department, Jamaica, Vol. I. part 5, new series.
Revue Agricole, Journal de la Chambre D'Agriculture de L'Ile Maurice Nos. 7 and 8, 1894.
Report of the Department of Land Records and Agriculture, Central Provinces for the year, 1892-93, Nagpur, 1894.
Annual Report of the Government, Agri-Horticultural Gardens, Lahore for the year ending 31st March, 1894.
Proceedings of the Madras Government, Nos. 578, 578a, 578b and dated 8th August, 1894, reviewing the report on the results of the distribution and sale of Quinine powders; Nos. 302, 302 a, dated 4th May, 1894, reviewing report on the famine of 1891 and 1892 &c. and Nos. 481, 481a, 481b, and 481c dated 6th July, 1894, reviewing the annual Administration Report on the Government Cinchona Department, Ootacamund.
Memoranda on the first forecast of Sesamum crop, and first Cotton forecast both dated Nagpur 15th August 1894; Sesamum crop of the Punjab, Cotton crop, and Indigo crop all dated Lahore 15th August, 1894; Indian Cotton crop, Seasmum crop, and Coffee crop in Coorg dated Simla, 23, 24 and 25th August, 1894 respectively; Sesamum crop and Cotton crop both dated Lucknow, 14th August, 1894.

The following contributions were made to the Gardens :—

Seeds of Anona cherimolia and Hevea braziliensis from Mr. T. J. Ferguson, Calicut.
Seeds of Hymenæa courbaril and Ipomæa grandiflora from Mr. J. H. Stephen, Curator, Lal Bagh, Bangalore.
Seeds of Memecylon tinctorium from Mr. J. H. A. Porter, Deputy Conservator of Forests, Trichinopoly.

Trees planted.—List of trees and shrubs planted out in the Gardens during the month.

Aglaia odorata
Albizzia moluccana
Phyllarthron Bojeriana
Ptychosperma Mac Arthurü
Ravenala madagascariensis
Allamanda violacea
Bambusa siamensis
Bauhinia Galphimii
Bixa orellana
Canella alba
Chamærops Fortunii
Combretum grandiflorum
Cycas Rumphii
Lemonia spectabilis
Livistona chinensis

Japanese Wineberry.—(Rubus phœnicolasius) A plant was raised from a small packet of seed received from Mr. Narasinga Row of Mangalore in March last. It is referred to in Gardeners' Chronicle, p. 423 of 7th October, 1893, as follows :—

"The berries are about as large as Raspberries of a shining scarlet or yellowish red, entirely enclosed in the hairy calyx until nearly mature and borne in large clusters. The flavour is exceedingly agreeable and distinct and whether eaten raw or cooked or made into jam, they are excellent." Illustrated in Botanical Magazine vol. 106, t. 6,479 and Gardeners' Chronicle 18th September, 1886, p. 365.

Recorded.

Spathelia simplex.—(from spathe, a palm tree and simplex, alluding to the unbranched stem) A simarubaceous plant has flowered for the first time in these gardens. Seed was received from the Royal Gardens, Kew, in January 1884. The tree is about 30 feet high and $11\frac{3}{4}$ inches in circumference at 5 feet from the ground. It is described by Grisebach in his Flora of the West India Islands as a tall generally unbranched tree 20 to 50 feet high, with the handsome large pinnate foliage crowded on the top and with large terminal panicles of pale rose coloured flowers.

Recorded.

Tea oil.—Received a pamphlet from David Hooper, Esq., treating chiefly on the extraction of an oil from Tea Seed, which promises to be an article of considerable utility as the oil is described as being light-coloured and odourless and

remaining clear at ordinary temperatures and has been recommended as a good lubricating agent for watch-makers as it does not dry or clog fine machinery.

Recorded.

Financial Statement for September, 1894 and July to September 1894. Read and passed.

G. M. J. MOORE,
Chairman

H. W. H. COX,
Honorary Secretary.

Financial Statement from July to September, 1894.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 30th June, 1894 ...	2,358	3	9				Pay of Establishment... ...	992	8	5			
Do. in hand, receipt account on 30th June, 1894 ...	17	6	0				Cooly labour	198	7	3			
Do. in hand, expense Accont on 30th June, 1894 ...	42	6	6				Pots	60	4	0			
							Flower seeds from Messrs Vilmorin Andrieux & Co., ...	545	6	6			
							Vegetable seeds from Sutton & Sons	779	6	6			
				2,418	0	3	Red Hills water supply, April to June	66	8	4			
By sale of seeds from July to September ...	739	3	5				Seeds and plants from Bangalore Nursery men	99	14	0			
Do. plants do...	238	12	0				Import duty on flower and vegetable seeds	72	0	1			
Do. sundries do...	207	0	3				Orchid house repaired ...	41	10	7			
By Subscription from Members ...	483	12	0				Manure	13	8	0			
By Government Allowance do...	750	0	0				Printing charges	27	6	0			
				2,418	11	8	Other expenses such as Rail charges cooly hire, plants, seeds, &c., ...	514	9	1			
											3,411	8	9
							Balance with Messrs Binny & Co., on 30th September, 1894. ...	1,385	8	7			
							,, in hand, receipt account ...	10	7	6			
							,, in hand, expense account ...	29	3	1	1,425	3	2
Total Rupees ...	...	...	...	4,836	11	11	Total Rupees...	...	...	...	4,836	11	11

H. W. H. COX, *Honorary Secretary.*

Proceedings of the Agri-Horticultural Society of Madras, held on Monday, the 5th November, 1894.

OCTOBER, 1894.

PRESENT:

Colonel G. M. J. Moore, C.S.I, (*in the Chair*).

Col. Fane Sewell.	Rai Bahadur A. Thanakoti Mudelliar.
J. L. Walker, Esq.	Hon'ble Mr. A. T. Arundel.

Col. H. W. H. Cox, (*Honorary Secretary*).

The following contributions were made to the Garden Library :—

Kew Bulletin of Miscellaneous Information for September, 1894.

Bulletin of the Botanical Department, Jamaica, June, 1894.

Trinidad Bulletin of Miscellaneous Information, July, 1894.

The Indian Forester, Vol. XX part 9, for September, 1894.

Journal of the Royal Horticultural Society London Vol. XVII, parts 1 & 2.

Report on the Government Horticultural Gardens, Lucknow, for the year ending 31st March, 1893.

The Tropical Agriculturist Vol. XIV, September and October, 1894.

Report on the progress and condition of the Government Botanical Gardens, Saharanpur and Mussoorie for the year ending 31st March, 1894.

Revue Agricole et Journal de la chambre D' Agriculture de L'Ile Maurice No. 9, 1894.

Resolution on the management of the District Gardens in the Central Provinces for the year 1893-94.

Verslag omtrent den staat van Slands Plantentuin te Buitenzorg, 1893.

Vilmorin-Andrieux and Co's wholesale Seed list for Autumn, 1894.

Proceedings of the Madras Government Nos. 647, 647 A, passing orders on Quinine powders; No. 648 report on Botanical Survey and No. 849, passing orders on the Budget Estimate of the Secretary, Agri-Horticultural Society of Madras, for 1895-96.

Report on Experimental cultivation in the Southern Shan States of Burma for 1893-94.

The following contributions were made to the Gardens :—

One packet of Tobacco seed (Kuch Behar variety) from the Agricultural and Horticultural Society of India, Calcutta.

Bulblets of Fourcroya gigantea var. variegata and seed of Osteospermum moniliferum from Mr. J. Cameron, Lal Bagh, Bangalore.

Seed of Aristolochia elegans from Mr. T. H. Storey, Oodeypore.

Twelve plants each of Dendrobium aggregatum, D. Pierardii and Ærides adnata from the Agricultural Horticultural Society of India, Calcutta.

Read Report from the Consulting Architect to the Government of Madras, dated Chepauk, Madras, 18th October, 1894 in which he acknowledges the various contributions from the gardens and giving details of the results of their trial of the following seeds :—

Acacia sentis	Melaleuca symphyocarpa
Bauhinia Leichardtii	Elymus arenarius (Marram grass)
Melaleuca hypericifolia	Anona cherimolia
,, Preissiana	Swietenia macrophylla
,, genistifolia	Sterculia elata

It is proposed to purchase six new garden seats, comfortable ones are expensive; cheap ones are uncomfortable.

The purchase of six of the comfortable seats is sanctioned.

Plants to Port Blair.—A wardian case containing the following plants was despatched to Mr. E. H. Man, Port Blair per S. S. "Shahjehan" which sailed on the 22nd October, 1894:—

Artocarpus incisa, two plants	Ficus javanica, two plants
Feronia elephantum, two plants	Sapindus saponaria, two plants
Tabernæmontana, double fringed, two plants	Anona Cherimolia, two plants
,, coronaria, two plants	Pterospernum Heyneanum, two plants
Ptychosperma McArthurii, one plant	Brownea coccinea, two plants
Archontophœnix Cunninghamii, one plant	Sethia indica, two plants
	Bauhinia monandra, two plants
	Roupellia grata, one plant

Committee Member.—Read letter from Mr. C. Slater, dated Nungumbâkum, Madras 1st October, 1894 resigning his seat on the Committee as he is leaving Madras at the end of the month.

Resolved that Dr. Duncan be invited to join the Committee.

Trees planted out.—During the month the undermentioned plants were planted out in the Gardens:—

Acacia auriculiformis	Caryota sobolifera
Urostigma Vogelii	Combretum grandiflorum
Banisteria laurifolia	Saraca indica
Allamanda violacea	Hibiscus of kinds
Archontophœnix Cunninghamii	Holmskioldia sanguinea
Musa sp.	Roupellia grata
Bauhinia Leichardtii	Guattarda speciosa
„ sp. from Calicut	Gardenia Thunbergii
„ sp. Galphimii	„ Fortuniana

Budget Estimate.—Read proceedings of the Madras Government (Financial Department) No. 849, dated 11th October, 1894, passing orders on Budget Estimate of the Secretary, Agri-Horticultural Society, Madras, for 1895-96.

GOVERNMENT OF MADRAS.

Financial Department.

Read—the following papers:—

From the Honorary Secretary, Agri-Horticultural Society, dated 14th September and 4th October 1894, submitting Budget estimate for 1895-96.

Order—dated 11th October 1894, No. 849, Financial.

The grant of Rs. 4,000 will be entered in the budget for 1895-96. The allotment (Rs. 500) for special prizes will not, however, be disbursed in the event of the annual Flower Show not being held in 1896.

(True Extract.)

J. FREDERICK PRICE,
Chief Secretary.

Budget Estimate of the Secretary, Agri-Horticultural Society, Madras, for 1895-96.

Details.	Budget estimate, 1895-96.	Revised estimate, 1894-95.	Budget estimate, 1894-95.	Accounts, 1893-94.
	Rs.	Rs.	Rs.	Rs.
26. Scientific and other Minor Departments—Provincial.				
DONATIONS TO SCIENTIFIC SOCIETIES.				
Government donation for the Agri-Horticultural Society ...	4,000	4,000	4,000	4,000
DETAILS OF PROBABLE INCOME AND EXPENDITURE OF THE SOCIETY.				
Income.				
Government Grant	3,500	3,500	3,500	3,500
Do. on special prizes ...	500	500	500	500
Subscriptions	1,750	1,800	1,900	1,968
Sale of Tickets	800	775	850	838
Sale of exhibits	...	...	...	...
Other Receipts ... by sale of seeds.	2,000	1,900	2,000	2,003
Other Receipts ... „ plants.	1,280	1,500	1,600	1,311
Other Receipts ... „ sundries.	970	900	1,000	984
Total ...	10,800	10,875	11,350	11,104
Expenditure.				
Prizes and other expenses connected with Flower Show	1,350	1,320	1,400	1,485
Advertisements ...	210	230	240	226
Printing charges ...				
Stationery and Postage ...	113	112	115	110
Cartage, cooly hire	550	490	500	466
Other Charges. Fixed Establishment ...	4,330	3,970	3,984	3,504
Other Charges. Cooly labour ...	750	780	800	749
Other Charges. Seeds for sale and members ...	1,700	1,700	1,650	1,639
Other Charges. Plants for sale ...	350	575	600	341
Other Charges. Pots and potting materials ...	215	200	220	207
Other Charges. Books and periodicals ...	200	215	200	240

Budget Estimate of the Secretary, Agri-Horticultural Society, Madras, for 1895-96.—continued.

Details.		Budget estimate, 1895-96.	Revised estimate, 1894-95.	Budget estimate, 1894-95.	Accounts, 1893-94.
Expenditure.—continued.		Rs.	Rs.	Rs.	Rs.
Other Charges.	General repairs ...	150	180	200	356
	Pipes laid ...	...	...	...	180
	Quit-rent and Municipal Tax...	49	49	49	49
	Red Hills water-supply ...	350	330	340	315
	Repairs to buildings ...	100	75	80	74
	Petty expenses ...	257	238	245	222
	Total ...	10,664	14,464	10,643	10,163

Recorded.

Financial statement for October, 1894. Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras.

NOVEMBER, 1894.

No Meeting of the Committee was held in December, but the papers were passed in circulation to the undermentioned:—

Hon'ble Mr. A. T. Arundel.	Colonel G. M. J. Moore, C.S.I.
Reddy Branson, Esq.	Colonel Fane Sewell.
Hon'ble Dr. D. Duncan.	Edgar Thurston, Esq.
D. E. W. Leighton, Esq.	J. L. Walker, Esq., M.A.

Col. H. W. H. Cox, *Honorary Secretary.*

The following contributions were made to the Garden Library :—

Kew Bulletin of Miscellaneous Information No. 94, October, 1894.

Tropical Agriculturist Vol. XIV No. 5, November, 1894.

Bulletin of the Department of Agriculture, Brisbane, No. 3, second series, September, 1894.

Annual Report of Dumraon, Burdwan and Sibpur, Experimental Farms for 1893-4.

Annual Report of the Government Experimental Farm, Poona, for the year ending 31st March, 1894.

Annual Report on the Gardens of H. H. the Maharana of Oodeypore for the year ending 1893-4.

Proceedings of the sixth Flower Show and sixth Annual Report of the Cossipore Practical Institution of Horticulture &c., 1894.

Annual Agricultural Report of the Department of Land Records and Agriculture, Bengal, for the year ending 31st March, 1894.

Report on the Government Botanical Gardens and Parks, Bangalore, for 1892-3 with the Dewan's Review thereon

Annual Report on the Government Cinchona plantation and factory in Bengal for the year 1893-4.

Annual Report of the Department of Land Records and Agriculture, Assam, for the year 1893-4.

Bulletin of the Botanical Department, Jamaica, No. 47, September, 1893.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile Maurice No. 10, October, 1894.

Proceedings of the Madras Government, 4th October 1894, passing orders on the cultivation of Ceara Rubber tree, No. 581, 9th August, 1894, reviewing Jamabandi Report; and Nos. 720, 720a 10th October, 1894 reviewing the report on the operations of the Department of Land Records and Agriculture, 1893-94.

The following contributions were made to the Gardens :—

Two Plants of Jasminum glaucum from Mr. J. L. Walker, M.A., Teynampett.

Seed of Celestial Chilly from Mr. J. Beck, Morvi, Kattywar.

Seed of Dombeya natalensis from Mr. J. H. Stephen, Curator, Lal Bagh, Bangalore

Seed of Acer oblongum from Mr. A. Jamieson, Curator, Government gardens, Ootacamund.

Celestial Chilly.—Received a packet of seed of Celestial Chilly from Mr. J. Beck, Morvi, Kattywar, a quantity of which was sown and the remainder kept for distribution. Mr. Beck informs that the plant is bushy, small-leaved, fruit upright, colour creamy yellow; when ripening, it turns bright scarlet and adds that "we take out the seed and fry as a vegetable. It is a most abundant cropper."

Recorded.

Committee Member.—Read letters from Hon'ble Mr. D. Duncan, dated Nungumbaukum, 9th November, 1894, stating that he will be happy to serve on the Committee.

Read also letter from Mr. D. A. J. Crombie, dated Madras, 28th November, 1894, withdrawing his name from the list of members of the Society and from its Committee as he is leaving Madras.

Recorded.

Financial Statement for November, 1894. Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for December, 1894, held on Monday, the 14th January, 1895.

DECEMBER, 1894.

PRESENT :

Hon'ble Dr. D. Duncan, (*in the Chair*).	J. L. Walker, Esq.
Reddy Branson, Esq.	Colonel H. W. H. Cox, (*Hony. Secretary*).

The following books and periodicals were contributed to the Garden Library :—

Kew Bulletin of Miscellaneous Information, Appendix I and III of 1895.

Records of the Geological Survey of India, Vol. 27, part 4., 1894.

Report on the Cawnpore Experimental Farm, for the Kharif and Rabi seasons, 1893-94.

Report on the Roadside Arboriculture in Central Provinces, during 1893-94.

Report on the Department of Land Records and Agriculture, Madras Presidency, for the year 1893-94.

Proceedings and Journal of the Agril. and Horticultural Society of India, Calcutta, for July to September, 1894.

Botany Abridged by F. M. Bailey, F. L. S., Colonial Botanist, Brisbane, 1894.

Bulletin of the Department of Agriculture, Brisbane, No. IX on contributions to the Queensland Flora, 1894.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile Maurice, No. 11, November, 1894.

Bulletin of the Department of Public Gardens, Jamaica, for August and September 1894.

Bulletin of the Royal Botanic Gardens, Trinidad, No. 24, October, 1894.

The following Agricultural Ledgers—from the Government of Bengal, Revenue Department treating of the undermentioned subjects,

Vegetable product series—(*a*) 1, Potato. 2, Agave. 3, Potato. 4, Vine. 5, Sugar. 6, Vine. 7, Potato. 9, Lucerne. 10, Rhea.

Agricultural series—(*b*) 1, Indian Fodder grasses. 2, Seed distribution. 3, Salt deposits. 4, Dairy farming. 5, Manures and manuring 6, Silage making.

Entomological series—(*c*) 1, Locusts. 2, Silk.

Veterinary series—(*d*) 7, Horse diseases. 8, Cattle diseases.

Mineral series—(*e*) 1, Saltpetre. 2, Saltpetre. 3, Reclamation of usar land.

Implement and Machinery series—(*f*) 1, Ploughs.

Miscellaneous series—(*g*) 1, Land Records and Agricultural Bulletins. 2, Introductory note by the editor. 3, Botanic and economical collection.

The Indian Forester, Vol. XX No. 11, November 1894.

Reporton Forest Administration in Germany, by G. A. Hight, Weimar 1894.

Report on the Department of Land Records and Agriculture, Burma, for the year ending 1893-94.

Proceedings of the Madras Government, No. 767, dated 5th November, 1894, passing orders on Board's proposals for grazing areas in the Kistna District.

A pamphlet on the Absorption Spectra of certain vegetable colouring matters by C. Michie Smith, March 1890.

Landreth and Son's catalogue of seeds, for 1895.

Bulletin of Miscellaneous information, Grenada, West Indies, No. 38, July to August, 1894.

The following contributions were made to the gardens :—

One plant of variegated Phyllanthus from Miss Oxley.

Seed of Phœnix acaulis from the Superintendent, Royal Botanic Gardens, Calcutta.

Seed of Polygonum Sachalinense from Mr. M. Ridley, Superintendent, Horticultural Gardens, Lucknow.

Growth of Rain trees.—Read the following letter from Hon'ble Mr. Arundel, dated Adyar, 9th December, 1894 :—

"It may be of interest to note that the two Rain trees (Pithecolobium Saman) in front of my house, the measurements of which I sent you last year are now in spite of clipping 20 feet high and that one of them is 17 inches in girth, 3 feet from the ground, and the other, 16 inches."

October 1892.	*9th November*, 1893.	*9th December*, 1894.
Planted when about $\frac{3}{4}$ inch in circumference at 3 ft. from the ground.	Measured $6\frac{3}{4}$ inches in circumference (see Pro. p. 68 ante.) at 3 feet from the ground.	17 inches in circumference at 3 ft. from the ground.

Rain tree Measurements.

The following measurements of the tree taken at breast height (5 feet) on or about the 1st day of every month from October 1883 to 1885.—Vol. p. 433, Proceedings of the Madras Agri-Horticultural Society.

Monthly.

		ft.	in.			ft.	in.
1883	October	6	9	1884	July	6	$11\frac{1}{2}$
	November	6	$9\frac{1}{3}$		August	6	$11\frac{7}{8}$
	December	6	$10\frac{1}{3}$		September	7	,,
1884	January	6	$10\frac{3}{4}$		October	7	1
	February	6	$10\frac{3}{4}$		November	7	$1\frac{1}{8}$
	March	6	$10\frac{5}{8}$		December	7	2
	April	6	$10\frac{1}{3}$	1885	January	7	3
	May	6	$10\frac{1}{2}$		February	7	$3\frac{1}{2}$
	June	6	$10\frac{5}{8}$				

Yearly.

	ft.	in.
June 1884	6	$10\frac{5}{8}$
,, 1887	8	$1\frac{3}{4}$
,, 1888	8	$4\frac{1}{4}$

Plants from Port Blair.—A wardian case of Plants was received from Mr. E. H. Man, Port Blair, containing the undermentioned :—

12 Pandanus Mellorii (all in good order)
24 Orania Bentincki (3 dead)
12 Ptychoraphis Augusta (2 dead)
12 Corypha elata (all dead)

Recorded.

Garden Maistries.—Read letter from garden Maistries requesting that Chepauk Park, Peoples Park and Government House, be excluded from competing or that separate prizes be offered for flowers and plants exhibited by private gardens.

The schedule of prizes as published must be adhered to.

Auditors.—Resolved that Messrs D. E. W. Leighton and W. S. Shaw be invited to audit the accounts of the Society for 1894.

Committee Members.—Resolved that Messrs W. H. Oakes and Hon'ble Mr. J. Sturrock be invited to join the Committee.

Judges for Show.—Resolved that the gentlemen in the Honorary Secretary's list be invited to act as Judges at the Show to held on 23rd February next.

Financial statement for December, 1894, and October to December, 1894.

Read and passed.

D. DUNCAN,
Chairman.

H. W. H. COX,
Honorary Secretary.

Financial Statement from October to December, 1894.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 30th September, 1894 ...	1,385	8	7				Pay of Establishment	990	12	0			
Do. in hand, receipt account on 30th September, 1894. ...	10	7	6				Cooly labour	200	0	0			
Do. in hand, expense account on 30th September, 1894 ...	29	3	1				Plants	332	5	2			
							Manure, pots and sand	101	13	0			
							Iron seat	10	0	0			
							Printing charge	23	2	0			
				1,425	3	2	Seeds from Messrs. Sutton & Sons, 3rd batch	76	10	7			
By sale of seeds from October to December 1894. ...	692	5	6				Other expenses such as rail charges, packing, cart hire, &c. ...	366	14	10			
Do. plants do...	408	7	9								2,101	9	7
Do. sundries do...	282	7	0										
By Subscription from Members do...	282	0	0				Balance with Messrs. Binny & Co., on 31st December, 1894. ...	1,498	4	3			
By Government Grant do...	750	0	0				,, in hand, receipt account do ...	209	12	6			
				2,415	4	3	,, in hand, expense account do ...	30	13	1	1,738	13	10
Total Rupees...	...	...	...	3,840	7	5	Total Rupees...	...	...	...	3,840	7	5

Agri-Horticultural Society,

Madras, *3rd January*, 1895.

* With the exception of postage charge of Rs. 1-8 or 2 to be debited.

H. W. H. COX, *Honorary Secretary.*

Proceedings of the Agri-Horticultural Society of Madras for January, 1895, held on Monday, the 4th February, 1895.

PRESENT :

COLONEL G. M. J. MOORE, C.S.I., (*Chairman.*)

HON'BLE MR. A. T. ARUNDEL.	E. THURSTON, ESQ.
HON'BLE MR. J. STURROCK.	REDDY BRANSON, ESQ.
HON'BLE DR. D. DUNCAN.	J. L. WALKER, ESQ.
COLONEL FANE SEWELL.	W. H. OAKES, ESQ.

COLONEL H. W. H. COX, (*Honorary Secretary.*)

The following contributions were made to the Garden Library during the month :—

Crop Experiments Bombay Presidency, 1893-94.

Field and Garden crops of the North-Western Provinces and Oudh, with illustrations, Part III, 1893.

Kew Bulletin of Miscellaneous information, No. 95, November 1894.

Proceedings of the Madras Government, No. 887, dated 19th December, 1894, on Tanjore settlement.

Records of the Botanical Survey of India, Vol. 1, No. 3, 1894.

Sutton's Amateurs' Guide in Horticulture for 1895.

Vilmorin-Andrieux and Co's. general wholesale seed list, 1894-95.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile, Maurice No. 12, Decembre 1894.

The following memoranda from the Department of Land Records and Agriculture, Bengal :—

Early cotton crop in Bengal, 1894, dated 30th November 1894 : Financial report on the winter rice crop of Bengal, dated 5th December 1894 and Final Report on the Bhadoi crops in Bengal, 1894, dated 11th December, 1894.

From the Government of India, Department of Revenue and Agriculture :—

Cotton crop in Berar, 13th December 1894 ; Linseed crop in Berar 19th December 1894 ; Wheat crop in Berar, 19th December 1894 ; Winter Oilseeds crop of the season 1894-5, 28th December 1894 ; Mustard crop in Assam, 21st December 1894 ; Rice crop of 1894, 26th December 1894 ; Cotton crop of the season 1894-95, 3rd January 1895 ; and Sesamum crop of the season 1894-95, dated 12th January 1895.

From the Department of Land Records and Agriculture, Punjab :—

Cotton crop of the Punjab, 10th December 1894 ; Indigo crop 12th December 1894 ; Wheat crop, 20th December 1894 ; Rape seed crop, 20th December 1894 ; and Sesamum crop, 27th December 1894.

From the Department of Land Records and Agriculture North-West Provinces and Oudh :—

Cotton crop for 1894, 9th December 1895 ; Wheat crop, 19th December 1894; Linseed crop, 19th December 1894 and Til crop, 26th December 1894.

From the Department of Land Records and Agriculture, Bombay :—

Early and late Cotton crop, 15th December 1894 ; Wheat crop, 24th December 1894 ; and Sesamum crop, 5th January 1895.

From the Department of Land Records and Agriculture, Madras :—

Cotton crop, 10th December 1894 ; Indigo crop, 15th December 1894, Paddy crop, 7th December, 1894 ; and Gingelly crop, 22nd December 1894.

From the Department of Land Records and Agriculture, Central Provinces :—

Cotton crop, 7th December 1894 ; Linseed crop, 15th December 1894 ; and Wheat crop, 15th December 1894.

From the Department of Land Records and Agriculture, Burma :—

Rice crop prospects, 1894-95 dated 13th December 1894 and 15th January 1895.

Index to the Bulletins of the Department of Land Records and Agriculture, Madras, from Nos. 1 to 31 (1889—1894).

The following contributions were made to the Gardens during the month: –

Fruits (96) of Areca catechu from Colonel H. W. H. Cox, Egmore.

The undermentioned Australian seeds from Baron Ferd. Von. Mueller, Government Botanist, Melbourne:—

Acacia mollissima
,, longifolia
,, pycnantha
,, ornitophora
,, sophora
,, pinifolia
,, albicans
,, decurrens
,, dealbata
,, melanoxylon
Araucaria Cunninghamii
Bursaria spinosa
Casuarina torulosa
Cyathea medullaris
Cordyline Banksii
,, superbiens
Callistemon rigidus
Clerodendron tomentosum
Clianthus Dampieri
Dracæna australis
,, Draco
Deeringia celosioides
Dammara australis
Eucalyptus 34 varieties
Elæodendron australe
Frenela columellaris
Ficus macrophylla
,, (australis) rubiginosa
Fourcroya longæva
Grevillea chrysodendron
,, robusta
,, Hilliana
Heptapleurum venulosum
Hymenospermum flavum
Hakea acicularis
,, laurina
,, uliginosa
Hymenanthera angustifolia
Lophostemon australe
Nephelium tomentosum
,, leiocarpum
Panax elegans
Pittosporum 9 varieties
Ptilotus exaltatus
Spondias solandri
Sterculia heterophylla
,, acerifolia
Scolopia Brownii
Syncarpia laurifolia
Tecoma australis
Tristania conferta

Committee Members.—Read letters from Mr. W. H. Oakes and Hon'ble Mr. J. Sturrock, dated Nungumbakum, 25th and 23rd January, respectively, accepting with pleasure the office of Members of the Committee.

Recorded.

Auditors.—Read letters from Messrs. W. S. Shaw and D. E. W. Leighton accepting to undertake the audit of the Society's accounts for 1894.

Recorded.

Helianthus argyrophyllus.—Seed of this silvery leaved Sunflower was received from Messrs. Sutton and Sons in August last, and the plants raised from it have recently flowered.

One plant attained a height of 14′ 5″ and a spread of 7′ 8″; profusely covered with flowers. One of the tallest Sunflowers yet introduced.

Recorded.

Garden Seats.—Six new garden Seats have been made at a cost of Rs. 23 each and placed in parts of the gardens where required.

Recorded.

Head Clerk's Pay.—Read letter from M. Devarajulu, Head writer asking for an increase to his salary of Rs. 5 per mensem.

The Committee sanction an increase of Rs. 5 per mensem to the pay of M. Devarajulu from 1st February, but declines to guarantee an annual increment.

Financial Statement for January, 1895.

Read and passed.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Hony. Secretary.

Proceedings of the Agri-Horticultural Society of Madras for February and March, 1895, held on 8th April, 1895.

PRESENT :

HON'BLE MR. A. T. ARUNDEL, (*Chairman.*)

W. H. HAMILTON HOLMES, ESQ. | J. L. WALKER, ESQ.
E. THURSTON, ESQ. |

COL. H. W. H. COX, (*Honorary Secretary*).

FEBRUARY, 1895.

The Indian Forester, for January 1895 and February 1895.

Notiz blatt des Konigl. Botanischen Gartens and Museums zu Berlin Januar 1895 No. 1 and Appendix.

List of seeds collected in the Royal Botanic Gardens, Edinburgh during 1895.

Bulletin No. 4 (second series) of the Department of Agriculture, Brisbane, October, 1894.

Jardin Botanique de la ville delilie, catalogue des graines, 1894.

Index Seminum in Hortis Musei Parisiensis, anno 1894 collectorum.

Jardin Botanique de Saigon—Catalogue des graines offertes en ēchange, Saigon 1895.

Annual Administration Report of the Forest Department, Madras Presidency for the year ending 30th June 1894.

Eleventh Annual Report of the Department of Land Records and Agriculture, Bombay Presidency for the year 1895-94.

Experiment Station Record of the U. S. Department of Agriculture, vol. V, No. 11 and vol. V. No. 1.

Report on work of the Agricultural Experiment Stations of the University of California for the year 1891-92—Bulletin No. 106—Distribution of seeds, plants &c. December 1894—and Bulletin No. 105 on Canaigre and Australian salt bush, October 1894.

Revue Agricole et Journal de la Chambre D'Agriculture de L'Ile Maurice, No. 1, Janier, 1895, and Fevrier 1895.

Journal of the Royal Horticultural Society London, January 1895 vol. XVIII and Report of the Council for the year 1894-95 and also arrangements for the year 1895.

A list of Agricultural Implements and Machines which have been tested in India during the year ended 30th September, 1894.

Nuttige Indisete Planten door. Dr. M. Greshoff. Koloniaal Museum, Extra Bulletin 1894.

Bulletin of the Royal Botanic Gardens, Trinidad, Miscellaneous, January, 1895.

Bulletin of the Botanical Department Jamaica, notes on Castleton Gardens. October to December, 1894 and January, 1895.

Tropical Agriculturist for January and February, 1895.

Administration Reports of the Royal Botanic Gardens, Peradeniya for 1894.

The Annual Flower Show. The annual exhibition of the Madras Agri-Horticultural Society was opened to-day at the Society's Gardens, Teynampett. The private view, which lasts from 7 A.M. till mid-day, was very well attended this morning. Their Excellencies Lord and Lady Wenlock arrived very early and were conducted over the Show by the Committee. The arrangements were exactly the same as those of previous years and were very satisfactory. There is, however, one small matter to which we would call attention and that is the desirability of exhibitors' names appearing on their exhibits. At present, until the Judges have been round and the prize cards have been affixed, it is difficult, and in many cases impossible, to tell to whom the exhibits belong. In some cases also the name of the prize winners is absent from the prize card. As usual, the annexe nearest the entrance was devoted to market gardeners who brought their produce for sale. Past the barrier was the annexe in which the vegetables were exhibited, amateur growers being accommodated on the right hand side of the annexe, market gardeners on the left hand side. Beyond this was the portion of the show devoted to Class I (Flowers in pots exclusive of annuals) and Class III (Cut Flowers). Class IV (Ferns, palms, foliage plants &c.,) were, as usual, under the big central tent, near which also were the roses, &c. Annuals were shown outside the tent, while the annexes adjoining the office were devoted to exhibitors of fruits and economic products, &c. The exhibition on the whole was, to our thinking, quite up to the standard of former years, though the Judges of the various classes with the details before them were no doubt able to state in what respects any particular class of exhibits had excelled or fallen short of the standard expected of them. In Class I the exhibits most deserving of notice were in the first instance the collection of roses. As far as we could learn the only two exhibitors were Mr. Eardley Norton and the People's Park.

Both exhibits were as varied as the conditions demanded and the plants with their floral burdens showed that if the variety of these favourite flowers that can be grown in Madras is limited, those that do grow attain such a pitch of perfection that the trouble expended on them is more than repaid. The Hon'ble Mr. Justice Shephard's exhibit of geraniums formed a generous patch of colour, and would have done justice to a Bangalore garden. Chrysanthemums are always a small but very choice exhibit. This year the competition lay between the Hon'ble Mr. Clogstoun and Mrs. A. Grant. The first prize was awarded to Hon'ble Mr. Clogstoun, second to Mrs. Grant. This lady was undoubtedly one of the most successful exhibitors of flowering plants this year. Another exhibit belonging to this lady was the petunias in the annual class. These exhibits were as a class poor, but three or four of the plants exhibited by Mrs. Grant bore large double parti-coloured flowers that redeemed the exhibit somewhat from the general charge. H. E. Lady Wenlock secured the second prize for these flowers. Mr. J. H. Cook and Mr. Purushotam Moodelly ran each other close for the first prize for double balsams. Mr. Justice Best secured the prize for a very fine collection of Phloxes. Mr. Rungiah Chetty received the second prize, while Lady Wenlock's exhibit was highly commended. For cut flowers Lady Wenlock carried away the first prize for a lovely exhibit of choice blossoms, Mr. Paddy securing the second prize, Mr. Eardley Norton again secured the first prize for some gorgeous spikes of hollyhock. One of the sights of the show every year is the exhibition made in Class IV (Ferns, &c.) The huge trophies of ferns, palms and foliage plants, piled up to roof of the tent containing in some cases more than two hundred varieties of conservatory plants, are a feast for the eyes, and the visitor is quite content to gaze and admire, leaving to the Judges the task of deciding which is best. As in the matter of roses, so in that of ferns, Mr. Eardley Norton and the People's Park were rivals for the silver medal awarded for the best collection of ferns. The Jaghirdar of Arnee is usually an

exhibitor in this class, and has always, something worth showing in the matter of foliage plants. He had a very good rival, however, in the Chepauk Park. Mr. Eardley Norton's palms and cycads was a large and varied exhibit and Mr. W. Shaw's splendid bank of crotons and Mr. Steavenson's delicately tinted dracænas were exhibits that were well worth noticing. Mr. Moonesawmy Naicker had a very choice collection of anthuriums and Mr. C. J. H. Ellis an equally choice collection of coleus, both of which gained prizes. Among the rare plants was an orchid, of great beauty and delicate scent which attracted attention. In the exhibition of vegetables grown in Madras by amateurs, Government House as usual secured the greatest number of prizes, exhibiting some giant yams, fine large succulent stalks of celery, a very tempting lot of crisp looking endives and other salads and some fine peas. Mrs. A. Grant was also a very successful exhibitor in this class, securing prizes for beet-roots and carrots. Mr. Thummler secured the prize for some fine turnips and the St. Patrick's Orphanage for onions. The market gardeners had as usual a fair collection of the same class of produce, and it was a treat in itself to compare the look of placid satisfaction on the faces of the prize winners with the depreciating glances cast at the favoured produce by unsuccessful neighbours. A tempting exhibition was that laid out in the fruit annexe, where all the most delicious fruit now available was to be seen at its best. The economic, annexe a useful and important part of the show has very little attraction for the great majority of "private viewers"; but having at its end the smoking department, smokers eventually drifted down there to see for themselves their fragrant weed in all its stages, from the growing plant to the well-rolled cigar turned out by deft workers on the spot. Hitherto Messrs. Spencer and Co., have made a specialty of this sort of exhibition, and this year again they had a handsome stall in which the many brands of cigars which have a deservedly high reputation were exhibited courteous attendants were present too who took an interested visitor in hand and

explained to him the various processes which resulted in the neat "Beaconsfield" or "Torpedo," "Gold Mohur" or "Siesta," Messrs. Wilson and Co., were also exhibitors not only of cigars but of cigar making, while Appu Rau and Co., contented themselves with merely exhibiting tobacco and cheroots. Appended we give a detailed list of prize winners with the Judges' remarks :—

Class I.—Flowers in Pots, exclusive of Annuals.

Best general collection of not less than 20 varieties, one pot of each, Rs. 10—Chepauk Park.

Best collection of Roses of not less than 12 varieties, 1st prize, Rs. 15 Mr. E. Norton. 2nd prize, Rs. 7—Mr. C. J. Hay Ellis.

Best Verbenas, not less than 12 kinds, Rs. 5—Mr. J. L. Walker.

Best Carnations, Picotees, Pinks and Dianthus, not less than 12 varieties, 1st prize, Rs. 5—Hon'ble Mr. Justice Best. 2nd prize, Rs. 2—Hon'ble Mr. H. F. Clogstoun, C.S.I.

Best collection of Creepers (Perennial), one pot of each, not less than 12 varieties, 1st prize, Rs. 10—Mr. C. J. Hay Ellis. 2nd prize, Rs. 5—Chepauk Park.

Best Geraniums and Pelargoniums, not less than 6 varieties, Rs. 5—Hon'ble Mr. Justice Shephard.

Best collection of Cannas, not less than 10 varieties, Rs. 5—Rai Bahadur A. Thanakotai Moodelliar.

Best collection of Begonias in flower, not less than 8 varieties, Rs. 5—Hon'ble Mr. H. F. Clogstoun, C.S.I.

Best collection of Perennial Phloxes, Rs. 3—None.

Best Chrysanthemums, 1st prize, Rs. 5—Hon'ble Mr. H. F. Clogstoun, C.S.I. 2nd prize, Rs. 2—Mrs. A. Grant.

Best Violets, Rs. 3—Mr. C J. Strinivasalu Naidu.

Best Heliotropes, Rs. 3—Mrs. A. Grant.

Best collection of Hibiscus, Rs. 5—Divided between Mr. J. L. Walker, and Rai Bahadur Danakotai Moodelliar.

Judges' Remarks.

JUDGES FOR EXHIBITS 1 to 6—Messrs. H. R. N. Ellison and A. E. Lawson.

REMARKS.—No. 2, An excellent exhibit—No. 8, showed better cultivation.—No. 4, Good—shows a decided advance on last year—No. 5, a very fine pot—shows much care and attention. No. 6, first prize decidedly good.

JUDGES FOR EXHIBITS 7 to 13—Messrs. T. W. Rawlins and W. Keess.

REMARKS.—The number of exhibitors very few, and the character of the exhibits not high.

Class II.—Annuals grown in pots.

JUDGES.—Messrs. J. M. Gleeson and C. Michie Smith.

Best collection of not less than 18 varieties, Rs. 10—Hon'ble Mr. P. Rungiah Naidu.

Best double Balsams, not less than 10 pots, 1st prize, Rs. 5—Mr. J. H. Cook. 2nd prize, Rs. 2—Mr. Purushotum Moodelliar.

Best Portulaccas, not less than 6 pots, Rs. 5—Hon'ble Mr. Rungiah Naidu.

Best Asters, not less than 12 pots, Rs. 5—Surgeon-Major-General C. Sibthorpe.

Best Phloxes, not less than 12 pots, 1st prize, Rs. 5—Hon'ble Mr. Justice Best. 2nd prize, Rs. 2—Mr. B. A. Rungiah Chetty.

Best Creepers, not less than 8 varieties, Rs. 5—Hon'ble Mr. Rungiah Naidu.

Best Petunias, not less than 6 pots, 1st prize, Rs. 5—Mrs. A. Grant. 2nd prize, Rs. 2—H. E. Lady Wenlock.

Best double Zinnias, not less than 6 colours, Rs. 5—Mr. C. Streeramulu Naidu.

JUDGES REMARKS.—The general collections of annuals were much as usual—very few new varieties being exhibited. The Asters were decidedly above the average. The Petunias very poor. Balsams, only two exhibitors—both good, the plants slightly past their best. The Phloxes—these were especially good exhibits, No. 8 being highly commended on account of the new varieties shown.

Class III.—Cut Flowers.

JUDGE.—J. L Walker, Esq.

Best collection of choice Cut Flowers 1st prize, Rs. 5—H. E. Lady Wenlock. 2nd prize, Rs. 3—Mr. H. L. Padday.

Best Hollyhocks, not less than 12 spikes, Rs. 3—Mr. E. Norton.

Best Dahlias, not less than 6 varieties, Rs. 3—Mr. S. R. Turnbull.

Best collection of Cut Roses, Rs. 3—No prize.

JUDGES REMARKS:

Choice Cut Flowers.—Three exhibits all of considerable merit.

Hollyhocks.—Three exhibits, two of which were disqualified for having flowers other than Hollyhocks. The collection which took the prize was above the average.

Dahlias.—Only 2 exhibits, one good and one poor.

Cut Roses.—Only 1 exhibit, containing very few varieties, hence no prize was awarded.

The entries in Class III were few in number, but the exhibits which took prizes were fully up to the average.

Class IV.—Ferns, &c.

Best collection of Ferns, 1st prize, a silver medal—Mr. E. Norton. 2 prize, Rs. 10—Mr. C. J. Hay Ellis.

Best grown Ferns, not less than 5 pots, Rs. 5—Mr. W. S. Shaw, and Mr. J. Steavenson, Rs. 4.

Best Single Specimen Fern, Rs. 3—Mr. J. L. Walker.

Best Bulbous and Tuberous Plants, not less than 6 varieties in flower, Rs. 5—Mr. B. A. Rungiah Chetty.

Best collection of fine Foliage Plants, not less than 20 varieties, and not more than 2 pots of each, 1st prize, Rs. 15—Jagirdar of Arnee. 2nd prize, Rs. 7—Chepauk Park.

Best collection of Caladiums, only one plant of each variety, to be exhibited, Rs. 7—one exhibitor.

Best collection of Alocasias, only 1 plant of each variety, Rs. 5—Mr. C. J. Hay Ellis.

Best collection of Palms, Cycads and other Palmaceous plants, not less than 10 varieties, Rs. 10—Mr. E. Norton.

Best collection of Crotons, not less than 15 varieties, 1st prize, Rs. 10—Mr. W. S. Shaw. 2nd prize, Rs. 5—Mr. Purushotum Moodelliar.

Best collection of Dracænas, not less than 8 varieties, 1st prize, Rs. 10—Mr. J. Steavenson. 2nd prize Rs. 5—The Jagirdar of Arnee.

Best Single Shrub grown in Madras in the tub or pot in which it is exhibited, Rs. 5—No prize.

Best Aralias and Panax, Rs. 5—No prize.

Best collection of Lycopodiums and Selaginellas, Rs. 5—Mr. A. Grant.

Best collection of Anthuriums, Rs. 5—Mr. T. Munisawmy Naiker.

Best collection of Coleus, Rs. 5—Mr. C. J. Hay Ellis.

Judges' Remarks.

Judges for Exhibits 1 to 7—Hon'ble Mr. Justice Best, and Hon'ble Dr. Duncan.—In Class IV, (I) there were only two exhibits. The exhibits to which the 1st prize was awarded contains a greater variety and was in our opinion decidedly superior. (II) There were three exhibits, we had some difficulty in deciding between two of these and for this reason we have given an extra prize. In (III) there were only two exhibits and we had no difficulty in deciding to give the prize to the fine specimen of Adiantum Farliense exhibited by Mr. J. L. Walker. (IV) There were two exhibits and we experienced no difficulty in awarding the prize. (V) There were two exhibits—we note that the rule limiting the number of specimens of each variety to two, was not observed. This renders our task more difficult than it would otherwise have been. (VI) There was only one exhibit. There were many

more plants than one of each variety; we did not think the collection of such exceptional merit as to justify our recommending a prize. (VII) Alocasias. The rule requiring only one specimen of each variety was not observed. Though there was only one exhibitor, the collection was in our opinion sufficiently good to merit the prize.

JUDGES FOR EXHIBITS 8 to 15—Hon'ble Mr. Justice J. H. Shephard and Mr. H. C. West. REMARKS.—With reference to the collections of the larger plants, such as palms, crotons, dracœnas, panax, &c. it is suggested that some limit be placed as the number of specimens of each variety. It is difficult to ascertain the number of varieties in any collection and it is impossible to estimate the merits of any individual plant when all are massed together. In the exhibits it is found that very many specimens are badly grown. It is probable that were more attention paid to this, the number of exhibitors in this class would be larger.

Class V—Rare Plants.

JUDGES.—Colonel D. J. McLeod and Mr. J. L. Walker.

Best collection of any plants not previously exhibited, grown in the Madras Presidency or Mysore, Rs. 15—No prize given.

JUDGES' REMARKS.—Only one collection shewn, no prize awarded.

Class VI.—Vegetables grown in Madras by Amateurs.

Best Celery, not less than 5 stalks, Rs. 3—Government House.

Best Beetroot, not less than 6 roots, Rs. 2—Mrs. A. Grant.

Best Turnips, not less than 6 roots, Rs. 2—Mr. Thummler.

Best Carrots, not less than 6 roots, Rs. 2—Mrs. A. Grant.

Best Onions, not less than 12 bulbs, Rs. 2—St. Patrick's Orphanage, Adyar.

Best Cucumbers, not less than 6, Rs. 2—Mr. Chelvaranga Raju.

Best Vegetable Marrows, not less than 6, Rs. 2—Mr. Etherajulu Naidu.

Best Yams, not less than 6, Rs. 2—Government House.

Best Tomatœs, not less than 12, Rs. 2—Rev. Mr. Sell.

Best Asparagus, Rs. 2—Mr. E. A. S. Nicholas.

Best collection of Salad Plants, Rs. 4—Government House.

Best Peas, Rs. 2—Government House.

Best Brussels Sprouts, Rs. 2—No prize awarded.

Best Arrowroot, Rs. 2—H. E. the Governor.

Best Tapioca, Rs. 2—H. E. the Governor.

Best Lettuces, Rs. 2— Mr. C. Yetherajulu Naidu.

Best Knol-khol, 6 specimens, Rs. 2—Mr. E. A. S. Nicholas.

Best Jerusalem Artichokes, Rs. 2—Mrs. A. Grant.

Best Best Chillies, Rs. 2—Mr. C. Yetherajulu Naidu.

Best collection of Indian Vegetable, Rs. 3—No prize awarded.

Best Collection of English Vegetable, Rs. 3—Mrs. A. Grant.

Best Radishes, Rs. 2—Mr. C. Yetherajulu Naidu.

Best Chillies and Capsicums grown in pots, Rs. 2—Mr. P. Streeramulu Naidu.

Best Sweet Herbs and Capsicums grown in pots, Rs. 3—Mrs. A. Grant.

Judges for Exhibits 1 to 12—Messrs. E. J. Shelford, and J. P. Nicholas. Remarks.—Considering the dryness of the season, we think the vegetables grown by amateurs in Madras show up remarkably well and compare favourably with last year's exhibits.

Judges for Exhibits 13 to 24—Surgeon-Major Van Geyzell and Khan Bahadur Mahammad Mirza Ismail. Remarks.—The exhibits as a whole are good, by far the best and most varied being the chillies and capsicums grown in pots. The lettuces to which the prize was awarded were as good as could be desired. The collection of sweet herbs in pots also deserves mention. There were only two collections of Indian vegetables, both of them poor in variety and in specimens, the collections of English vegetables were both good.

Class VII.—Vegetables (grown anywhere). Open only to Market Gardeners.

Celery, 6 stalks, 1st prize, 4—N. Parthasarathy Naidu.

2nd prize, Rs. 2—Rajagopaul Naidu.

Knol-khol, 6 specimens, 1st prize 3—Venkatachellum.

2nd prize, Rs. 2—C. Appanna.

Beetroot, 6 roots, 1st prize, Rs. 3—Venkatachellum.

2nd prize, Rs. 2—N. Muthusawmy.

Carrots, 1st prize, Rs. 3—M. Rudrappa.

2nd prize, Rs. 2—N. Pathasarathy Naidu.

Turnips, 6 roots, prize, Rs. 3—Venkatachellum.

2nd prize, Rs. 2—C. Appanna.

Onions, 24 bulbs, 1st prize, Rs. 3—Krishnasawmy.
2nd prize, Rs. 2—Parthasarathy Naidu.
Cabbages, 6 heads, 1st prize, Rs. 4—M. Rudrappa.
2nd prize, Rs. 2—Kirshnasawmy.
Vegetable Marrows, 1st prize, Rs. 3—K. Mooroogasa Naicker.
2nd prize, Rs. 2—K. Moonesawmy Naidu.
Cucumbers 1st prize, Rs. 3—Venkatachellum.
2nd price, Rs. 2—M. Rudrappa.
French Beans, 1st prize, Rs. 2—Manikum Pillai.
2nd prize, Rs. 1—C. Appanna.
Kidney Beans, 1st prize, Rs. 2—No prize.
2nd prize, Rs. 1—No prize.
Tomatœs, 1st prize, Rs. 3—T. Moonesawmy Naicker.
2nd prize, Rs. 2—Venkatachellum.
Chillies, 1st prize, Rs. 3—Kundasawmy Naicker.
2nd prize, Rs. 2- No. prize.
Brinjals, 1st prize, Rs. 3—Ragavaloo.
2nd prize, Rs. 2—Krishnasawmy.
Bandikai, 1st prize, Rs. 3—K. Chinnappa Naiker.
2nd prize, Rs. 2—C. Appanna.
Potatœs, (*a*) large, Rs. 3—C. Appanna.
Potatœs, (*b*) small, Rs. 3—Murugasa Naicker.
Peas, 1st prize, Rs. 3—Mathurai Ammall.
2nd prize, Rs. 2—Rajagopaul Naidoo.
Best collection of Salad Plants, Rs. 2—C. Appanna.
Lettuces, 1st prize, Rs. 2—Rudrappa.
2nd prize, Rs. 1—Chinnappa Naicker.
Cauliflowers, 1st prize, Rs. 3—Mathurai Ammall.
2nd prize, Rs. 2—C. Appanna.

JUDGES FOR EXHIBITS. 1—10.—The Hon'ble Mr. J. Sturrock and Mr. C. Conington. REMARKS.—The vegetables shown under class VIII, 1 to 10 were generally good both as regards quality and quantity. The exhibits of celery and cabbages were especially deserving of notice.

JUDGES FOR EXHIBITS. 11—20.—Colonel Fane Sewell and Mr. P. Eliayalwar Naidu. REMARKS.—The exhibits were on the whole a fair lot. There was no exhibit of kidney beans, No. 11. There was nothing that called for special remark.

Class VIII.—Fruits.

OPEN TO ALL.

JUDGES.—Mr. Reddy Branson and Colonel D. J. McLeod.

Best Strawberries, Rs. 10—Paul Munisawmy.
Best Raspberries, Rs. 3— do.
Best Peaches, Rs. 9—Munni Venkatapah.
Best Apples, 8—Munisawmy Naidu.
Best Pears, Rs. 5—None.
Best Sweet Oranges, 24 specimens, Rs. 3—Subbammal.
Best Pumplemoses, 6 specimens, Rs. 2—Munisawmy Naidu.
Best Figs, 12 specimens, Rs. 5—A. Munisawmy.
Best Grapes, 3 bunches, Rs. 5—Rungasawmy Moodelly.
Best Sapodillas, 24 specimens, Rs, 3—Govindoo Pillay.
Best Melons, 6 specimens, Rs. 3—Ramasawmy Naidoo.
Best Plantains, Rs. 3—Govindoo Pillay.
Best Lemons, 12 specimens, Rs. 5—Rungasawmy Moodelly.
Best Limes, Rs. 3—Munisawmy Naidu.
Best Guavas, Rs. 3—Rungasawmy Moodelly.
Best Citrons, Rs. 3—Muthappa Moodelliar.
Best collection of Dried Fruits, Rs. 5—K. Mahomed Sahib.

JUDGES' REMARKS.—The show of fruits was generally poor. There was only one exhibitor of strawberries but as the exhibit commended itself to the Judges they awarded the prize. No pears were exhibited.

Class IX.—Flowers and Vegetables.

OPEN ONLY TO SOLDIERS, NON-COMMISSIONED AND WARRANT OFFICERS, THE POLICE AND JAIL DEPARTMENT IN MADRAS.

JUDGES.—Colonel D. J. McLeod and Mr. J. M. Gleeson.

Best collection of Flowers, in pots, 1st prize, Rs. 10—"A" Division City Police.

2nd prize, Rs. 5—"E" Division Police Station (Mr. Hartnett.)

Best collection of Vegetables, 1st prize, Rs. 10—"E" Division Police Station (Mr. Hartnett.)

2nd prize, Rs. 5—"A" Division City Police.

EXTRA PRIZE LIST.

JUDGES.—Hon'ble Messrs. J. F. Price, M. Hammick and M. R. Ry. S. Krishnapraboo.

The Government having placed at the disposal of the Society a sum of Rs. 500, they have much pleasure in offering the following prizes, which will be open to the produce of the Madras Presidency, Hyderabad, Mysore, Coorg, Travancore and Cochin :—

A gold medal for the best sample, and a silver medal for the second best sample of Tea of good quality, that is largely sold by retail within the prescribed area, and is so moderately priced as to be suited for general consumption, *Prize*—1st Gold Medal, Glendale Tea Estate, and Kodanaad Tea Estate a Silver Medal.

N.B.—The sample exhibited shall be not less than 30 lbs. in weight, and competitors must sign and forward a declaration that they are the growers and preparers of the same, and that they have been grown since the last exhibition and form part of a "break" of at least 1,000 lbs. The exhibits will be sent for valuation to a Tea Broker in Calcutta, and the prize awarded by the Judges in accordance with the Broker's Report.

A silver medal for the best cured Tobacco.—Messrs. Wilson and Co.

A silver medal for the best cured Lunka Tobacco.—T. Casavaloo Naidu.

A silver medal for the best Cheroots.—Messrs. Spencer and Co.

A silver medal for the best Pipe Tobacco made in Madras.—No prize.

N.B.—Each exhibit of Tobacco shall be of not less than 10 lbs. in weight; and each Exhibit of Cheroots shall comprise 100 Cheroots of each of five different shapes, *i.e.*, 500 Cheroots in all. Each Exhibit of Pipe Tobacco shall be of not less than 10 lbs. in weight, and ready for use. Exhibitors of Cheroots must state the price at which they are prepared to sell 10,000 Cheroots of each shape. Competitors must sign and forward a declaration that they are the growers *or* preparers of the Exhibits.

Best sample of silk of not less than 1 lb. in weight, Rs. 15—Kotee Saw.

Best sample of Tussa or other wild silk of not less than 1 lb. in weight, Rs. 15—Kotee Saw.

A silver medal for the best general collection of produce usually exported from Madras, each article to have its name and use given—S. Ramiah Chetty.

A prize of 10 rupees for the best collection of Green Forage.—Chelvaranga Raju.

Best collection of Forest Products, *e.g.*, gums, oleo-resins, wax, &c., Rs. 10—C. Alliappa Chetty.

Best collection of Fibre Plants and cleaned Fibres, Rs. 15—C. T. Moonesawmy Moodelliar.

Best collection of Economic Plants such as timber and other useful trees, Rs. 15—No prize.

Best collection of Medicinal Plants, Rs. 10—No prize.

Best collection of Dyes, Tanning Materials and mordants, Rs. 10—C. T. Moonesawmy Moodelliar.

JUDGES' REMARKS.—Extra Prize List.

(i.) The Committee has been guided by the Brokers' report.

(ii. and iii.) Competition was small. The quality of the exhibits of Messrs. Spencer and Co. and Wilson and Co. were very good.

(iv.) Committee has awarded the prize to Messrs. Spencer and Co. but recommended that the medal for Class (v.) which has not been awarded may be given to Messrs. Wilson and Co. whose exhibits in his class almost equalled in quality those of Messrs. Spencer and Co.

(v) There were but three exhibits—one did not fulfil the requirements as regards weight. The other exhibits were so inferior as not to deserve any prize.

(vi. and vii.) The Committee has been guided by Brokers' opinion.

(viii.) The collection for which the prize was awarded was remarkably good.

(x.) The exhibits were, as a whole, inferior and badly arranged.

(xi.) There were only two exhibits, one very inferior. The exhibit which took the prize was fair.

(xii.) The Committee has awarded no prize in this class as it considered that none of the exhibits fulfil the necessary conditions, as the exhibits contain many specimens of no economic value.

(xiii.) No prize has been awarded in this class as the only exhibit which possessed any merit consisted of cut specimens and not of plants. The Committee, however, recommends that the prize be awarded as a special case, as it seems desirable that the exhibition of plants of this character should be encouraged.

(xiv.) The Committee considers that the exhibits in this class were poor.

NEW MART.

TEA REPORTS.

MESSRS. JARDINE SKINNER & CO.,

CALCUTTA, 23*rd January*, 1895.

Dear Sirs,

We beg to hand you our report and valuations on the following sample of Tea from Agri-Horticultural Society, Madras.

Your obedient servants,

THOS. MART & CO.

Brokers.

Marks & Nos.	Ex. 1/1¼ Valuation per lb.				Description.
	s.	*d.*	*s.*	*d.*	
1	0	11	1	0	Good Bro: Pekoe Souchong, fair tip, little flavoury, light.
2	0	0	1	3	Rather bold Pekoe leaf, very fair tip, brisk, nice flavour, light.
3	0	0	0	8	Bold black Souchong leaf, broken, rather softish flavoury liquor.
4	1	1	1	2	Close rather curly Pekoe leaf, fair tip, fresh, rather pungent, light.
5	1	1	1	2	Rather bold black Broken Pekoe, mixed with ends, little flavoury liquor wants point.
6	0	0	0	9½	Dark Broken Pekoe Souchong kind, little dusty, rather flavoury liquor.
7	0	0	1	8	Small good tippy Broken Pekoe, full brisk leaf.
8	1	3	——		Bold tippy Bro: Pekoe, little full dull.
9	0	0	1	10	Small good tippy Pekoe, pale, pungent, nice flavour.
10	0	0	0	9¼	Good even dark broken, few ends, full liquor.
11	0	0	0	8¾	Small black Pekoe kind much broken, few ends, full liquor.
12	0	0	1	0	Close black Pekoe leaf, fair tip, rather flavoury, light.
13	1	1	1	2	Small, only Pekoe leaf, rather broken, mixed with ends, brisk liquor, some flavour, rather light.

These are fair Teas generally, but they have neither as much flavour or substance as we have noticed in former samples from this district. The leaf of box No. 3 is too boid and ugly and that of box 11 is ragged and not properly cleaned. Sample 9 is showy in appearence and has good flavour but is very pale in colour and on a slack market its value would be very uncertain. The liquors of Nos. 3, 5, 8 and 11 are wanting in point and character.

Calcutta, 1st February, 1895.

Messrs. Jardine Skinner and Co.

Names of exhibitors—No. 13—Woodcote Estate, Coonoor,—9, 2 and 7 Glendale Tea Estate, Coonoor—10, Bonami Estate, Peermaad—5, 12, 6 and 3 Kodanaad Estate, Kotagiri—No. 4 Avoca Estate, Coonoor,—11. Nilgiri Tea and Cinchona Estate, Naduvatum and 8 and 1 Terramia Estate, Kullakambay.

Silk Report.

"We have examined the samples of Silk sent us and should place them in the following order."

B 1. Ten hanks of fine white silk of very good quality and size.
E 4. Two hanks of white silk apparently re-reeled.
E 6. Two hanks of white silk of very fine size.
E 5. Eight skeins white silk of various sizes.
B 2. Three small skeins, greenish white color.
A 1. A bundle of coarse green silk, rather foul.
D 2. A bundle of white and greenish white silk of various sizes, some very low quality.
E 1. Two skeins common greenish silk.
E 3. Six skeins low quality brownish green silk.
E 2. Two skeins yellow Koongro silk.
B 3. A bundle of hanks of Mooga silk, fairly good quality.
B 5. do rather coarser not quite so good.
A 2. Medium quality Mooga silk of poor color and wanting in lustre.
E 7. Mooga silk in skeins mixed in sizes, between B 5 and A 2 for merit.
B 4. Tussur in hanks fine in size and of fairly good quality.
D 1. Colored silks some twisted and some spun.
G 22. Colored silks spun, not quite so good.

Yours faithfully,
HODGSON & TAYLOR.

Silk.—A 1 Kannisaw, B—Koteesaw, C—Chunthusaw, D—Ragulsaw, and E--Thongadi Tholsisaw and son. Tussa silk.—A 2 Kannisaw and, B—Koteesaw.

The special thanks of the Society and the public are due to those gentlemen who by the largeness of their exhibits contributed so much to the success of the Show.

The Society are also much indebted to H. E. the Governor for the services of his band, who played at the Gardens, until 1 p. m., and for his tents, tables, carpets &c.; the Commissioner of Police; the President Municipal Commission; the Commissioner U. C. S. Examination; Messrs. Deschamps and Co.; the Principal, Teachers' College; Mr. W. Keess, Agricultural College, Saidapett; the Honorary Secretary, Orphan Asylum; the Secretary, Military Female Asylum; and other gentlemen for the use of their tables, benches, chairs and other necessaries.

Coffea stenophylla.—Read the following report from T. J. Ferguson, Esq., dated Calicut, 27th February, 1895 :—

"In reply to your letter of the 16th instant, I planted the small supply of seed (in cherry) of the Coffea stenophylla immediately on receiving it from you about the end of June last.

Only 10 or 12 of the seeds germinated and I only succeeded in raising 8 plants, all were weak and sickly at first, several seeds germinated 2 months after the others.

I got fine well grown healthy plants which have now 3 pairs of primaries, and average eight inches in height. I have two healthy young plants with five pairs of leaves, and one sickly plant with four pairs of leaves.

One of the largest plants has been planted out in the open here for some months among some Arabian and Liberian hybrids, fine robust plants, among which the Sierra Leone plant looks a dwarf. I am sending all the plants, except the one referred to above, to be planted in Wynaad. A hybrid between these and Liberian might prove a valuable addition to the Planters' fields. It is difficult to believe that the Sierra Leone plants can bear large or even ordinary crops, it is so much smaller than the smallest Arabica of the same age."

Reports also were received from Mr. Woodrow, dated Poona, 26th February, 1895 ; Mrs. H. Munro, dated Peermaad, 25th Feburary, 1895 ; Mr. W. Gollan, Saharanpur, dated 7th March ; and Rev. Richter, Coorg, dated 22nd Feburary 1895, stating that none of the seeds sent germinated.

Recorded with thanks.

Moth-catching Plant.—Read letter from Rev. G. Richter, dated Mercara, 22nd February, 1895 forwarding a cutting from "Public Opinion" dated January 18th, of a Moth-catching plant and recommending the Society to introduce the plant :—

"This plant (*Araugia albens*), which is a native of Southern Africa, was introduced to New Zealand quite accidentally about seven years ago, and since then it has been extensively propagated there, on account of its effective service as a killer of destructive moths. Wherever the climate is mild, the plant is an exceedingly free grower ; it twines and climbs with great luxuriance, and produces immense numbers of white or pinkish flowers, which have a very agreeable scent. These flowers attract innumerable moths. On a summer evening a hedge of araugias will be covered by a perfect cloud of moths, and in the morning there will not be a single flower that does not imprison one or two, and sometimes as many as four insects of various sizes and genera. The action of the araugia is purely mechanical. The calyx of the flower is rather deep, and the receptacle for its sweet juices is placed at its base. Attracted by the powerful scent and the prospect of honey, the moth dives down the calyx, and protrudes its proboscis to reach the tempting food. But before it can do so the proboscis is nipped between two strong, hard, black pincers, which guard the passage, and once nipped there is no escape for the moth, which is held as in a vice, by the extreme end of the proboscis, and dies miserably. The *rationale* of the process is not yet explained. A plant of araugia, covering

a space of ten yards in length, will destroy many hundred moths every night, and consequently, prevent the ravages of fifty times as many larvæ. It is, however, a singular fact that in New Zealand, where the plant has often been cultivated for the express purpose of destroying the detested codlin moth (*Carpoapsa pomenalla*), that wily insect declines to enter the trap.—*Detroit Free Press.*"

Jail Department for Flower Show.—Read letter from Mr. E. Gadsden, Superintendent, Central Jail, Coimbatore, asking whether he as Jail Superintendent will be allowed to compete at the next and following Flower Shows in the Classes for vegetables. The Jail grows vegetables for sale and Mr. Gadsden contends that he is entitled to compete as a market-gardener.

Resolved, that as the rules at present stand the Superintendent of a Jail is not competent to exhibit as a market-gardener. The question of the advisability of throwing class VII open to all will be considered when the prize list for the next show is prepared.

Judges Remarks.—With reference to the remarks of judges in the extra Prize list it is resolved that it appears inexpedient to award a second prize for cigars and that the conditions laid down in the Prize list must be strictly adhered to.

Financial statement for February 1895. Read and passed.

MARCH, 1895.

The following contributions were made to the Garden Library :—

Proceedings and Journal of the Agricultural and Horticultural Society of India for October to December 1894.

Kew Bulletin of Miscellaneous Information for December, 1894, and January 1895.

Delectus Seminum quae Hortus Botanicus Imperialis Petropolitanus pro Mutua commutatione Offert, 1894.

Agricultural Statistics of the Lower Provinces of Bengal for 1893-94.

Bulletin No. 1 (List of the Principal crops grown in Bengal) of the Department of Land Records and Agriculture, Bengal.

Field and garden crops of the North-Western Provinces and Oudh, with illustrations—part I and II.

The following contributions were made to the Gardens :—

Seed of Liberian Coffee from T. J. Ferguson, Esq., Calicut.

One slab of marble wood (Diospyros Kurzii) from Mr. H. Man, Port Blair.

Seed of Toxicophlœa spectabilis from Mr. H. Thorne, Superintendent, Taj Gardens, Durbungah.

Five seeds of Entada scandans from Mr. W. E. Gilbert, Yercaud.

Three bags of Crotolaria juncea seed from the Honorary Secretary, Cossipore Horticultural Gardens.

A packet of seed of Grammatophyllum speciosum (Orchidaceæ) from the Botanic Gardens, Saigon.

Seed of Livistona Jenkensii from the Royal Botanic Gardens, Calcutta.

The Plantain in Malabar.—Read the following extract from the *Madras Mail* of the 29th January, 1895 :—

"THERE ARE OVER THIRTY VARIETIES of the plantain to be found in Malabar. The *Kakamannen* is a rather straight fruit, three or five-sided, with a thick, fibrous skin. When green, it is largely used by the natives for curries and for a particular dry and tasty dish. When ripe, it is said to be useful for its cooling properties. The *mannen* (common or garden variety) is a poor fruit, with little pulp, but deemed safe to be given as food, when ripe, to small-pox patients. Then comes the *mala-mannen*, which is not, as its name would imply, confined to hill localities, but is found all over the District. Its fruit is larger, rind thicker and the inside of the pulp yellower when ripe than is the case in the preceding varieties but its flavour by comparison suffers much. Two varieties of the delicious "Guindy" plantain are largely grown in Malabar. The fruit, when ripe, is yellow within, the skin is very fine, and the bunch is so large at times and so closely packed that the natives call it "the thousand plantain." The smaller variety of the "Mysore" fruit is invariably the sweeter. The green fruit is not put to use. The *pooen*, or proper "table plantain," when fully ripe, is a very delicious fruit, much prized by Europeans. But frequently it is spoiled by the pulp being gritty and hard. This is doubtless the result of indifferent cultivation, but the Malayali, who has an occult

reason to advance for anything out of the way, says that the nodules that spoil the fruit are due to some one having cast an evil eye on the tree. There are actually two varieties of the *pooen*, both being good eating when not affected in the manner described. There is rather an uncommon sort of plantain known as the *chen kathali*. (I think it answers to the botanical *Musa rubra*, while those previously described come under M. *paradisiaca*). The tree is larger than most other varieties, and so is the fruit. The former is easily identified by the dull red colour of the stem and of the mid-ribs of the fronds. The fruit has a rich flavour and is used in medicine by the natives. The *vella kathali*, except in colour, somewhat resembles the foregoing. It is considered a valuable plant. Parts of its flowers go to make a medicinal decoction while the stem is reduced to ashes and used as an external remedy in certain sorts of swellings.

In parts of the Wynaad one meets with the *kari-vayaka*, another medicinal variety of plantain. The root of this tree is used for poultices, etc., and the fruit is also reputed to possess valuable therapeutic properties. This variety of plaintain is rather rare, being only obtained near Tamrasheri and similar localities. The *theya nali*, or as some call it *thezhuddani*, is a very popular sort when green. It has the appearance of a nail at its base; is very insipid when ripe, but in its "greener days" it makes a good curry. The most common variety of Malabar plantains is perhaps the *koonhen* or the "childrens' plantain," as the Malayali calls it. It is of small size, about 5 inches at most in length, and slightly curved. The rind when ripe is a dull yellow, and freer from fibre than the skin of the *mannen* is. the fruit has a simple agreeable flavour, and is looked upon as safe, wholesome and very nutritious. It is most generally given as diet to little children, for which purpose it is made into a powder for gruel. When the fruit is thoroughly seasoned, the skin and fibre are removed, the pulp is cut into slices and dried in the sun, after which it is reduced to a mealy condition and boiled with milk into a *congee* or gruel. Among many communities in Malabar this meal (as well as a similar kind) is almost the exclusive diet of children till they attain the age of six months, when they are given rice. A second variety of this plantain is called *thatilla koonhen*; it does not look in any way much like the preceding, its chief feature being that the fruit grows very sparsely on its stalk. One more variety worthy of mention is known to the natives as *odehlan kai*, and is prominently mentioned in the "Ashtanga Hridayam," or great medical book, as the proper agent to be used to bring out latent small-pox. The green fruit is boiled in water and that water is then administered to the patient. All these sorts of plantain grow easily and demand little if any attention from the cultivator. They generally form a portion of the sub-arborescent vegetation of the Malabar valleys, being grown under areca, cocoanut, jack, mango and other tall trees. However poor a native may be, he is bound to have at least a couple of plantain trees growing in some corner of his limited *paramba*. He will crowd as many trees as possible into the least possible space, in defiance of his own familiar proverb that "a plantain tree growing with several others can produce no bunch." The cost of cultivation is almost *nil*, while manifold are the uses they serve. The wealth of graceful plantain fronds one sees all over Malabar add more than half the picturesqueness to many of our prettiest sylvan scenes.

I come now to the *ninthra-vayaka*, by far the most valuable variety from a commercial and economic point of view. Even the natives reckon it king among plantains, and bestow special care on its cultivation. It is grown by itself (not being a "social" plant) in large topes or gardens in valleys and on the hill slopes, in short, in localities somewhat protected from the effects of strong winds. About September or October, small pits are dug about 3 or 4 feet apart and kept open for about two months. Meanwhile, suckers, with the sprout cut off, have been well rubbed over with

cowdung, dried in the sun for a month and laid by in a cool place, beyond the reach of the bandicoot. In November or December these suckers (*kunnoo*) are planted, each one in a prepared pit. Just before planting, a layer of wood and straw ash and above that a heavy dressing of either leaf mould or green leaves are placed. The sucker, with its eye up, is then buried, but this does not quite fill the hole, a foot's depth being still left to admit of more manure being added as the sucker sprouts. When this occurs, the small plants are generously watered daily while more manure is put down every other or third day till the sucker sends out a fair-sized stem. As the parent tree grows, fresh suckers are formed, and these are also cut for planting. Some trees give as many as ten suckers, which sell at from half to one anna each. About the eighth month, the tree flowers, when squirrels, parrots, bats and bees are the pests that have to be guarded against, as they come to rob the honey from the spathes and if not detected cause great damage. When, soon after, the tender fruit has formed, locusts prove destructive, and later again, as the fruit approaches maturity, squirrels, parrots and even monkeys begin to steal it. Therefore, the cultivator cuts his bunches before they are properly matured and forces the fruit to ripen by burying it, or by rubbing with lime (*chunam*) or by merely shutting it up in unventilated rooms. Naturally all this tends to take away from its flavour and nutritive value. This premature picking is done to all plantains in Malabar. By the end of ten months, a well-tended plantain tree has lived, fructified and perished. A bunch of *ninthra vayaka* usually contains from about 40 to 55 plantains and a single garden or tope may consist of between 100 and 150 plants. The fruit sells in the towns, when it is newly in, at from Rs. 9 to Rs. 10 a thousand, but when the market is glutted, as usually happens later on, half the above price would only be obtainable. How strange it is that no means have yet been devised of turning the Malabar plantain into an article of foreign exportation.

As an article of diet the plantain is much to be recommended, being highly nutritious, with the additional advantage of possessing anti-scorbutic properties. Analysis has proved its superiority over potato, and its general wholesomeness cannot be over-estimated. The skin of the fruit makes excellent food for cattle; the leaf when fresh is used by natives to eat off; it protects the eyes in many forms of eye complaints: it makes a capital dressing for ulcers, blisters, &c.; when dry, it is largely used to wrap medicines, snuff, dry groceries and other things in; it forms a covering for Malabar cigars. The flower and the whole spathe are curried and so is the heart of the stem. The fruit stalk, cut up, makes very stout cord; the petiole or leaf stalk and the outer layers of the bark of the stem are a substitute for rope where with to tie bundles, fences, &c. What I would lay stress on is the possible value of the plantain as a textile and paper-making substance. The proposed Calicut Cannanore railway line will tap the country where almost every variety of Malabar plantains are largely grown. In other countries where it grows, good cordage is made out of the fibre and refuse, and I do not see why Malabar should not also have a few of its own plantain fibre factories. Economists may raise objections to this proposal on the score that the stems and stalks of plantain contain too large a percentage of water. This is an undoubtedly great draw back. But there is cheap machinery by which the fibre can be extracted, and it surely would pay to import such machinery into this district where the plantain thrives luxuriantly, but is—and more's the pity—as fully wasted.

Recorded.

Read the following letter from the Hon'ble Justice Shephard, dated Adyar, the 3rd March, 1895:—

"I would venture to make some suggestions with regard to the Annual Exhibition of the Society.

First. I would submit that some rule should be framed to keep out ill-grown or immature plants, and to discourage the exhibition of the commoner varieties. Mr. West and myself noticed several plants, which were distinctly poor, and ought never to have figured in a show. No doubt gardeners put them into swell the number, and for the sake of the general effect. The presence of such plants in any lot exhibited ought I think to be a disqualification.

As to the exhibition of the commoner sorts the numbers in many cases are so great that an exhibitor must be in some difficulty as to what to do. He may have a good collection of choice Begonias, Dracænas, Panax or the like, but in order to secure the prize, he would have to add to it specimens of the commoner kinds, otherwise he might be beaten by the larger collection of a rival. I cannot help thinking that people who might otherwise exhibit are desired from doing so by the inconvenience and expense of sending scores of pots, and by the uncertainty as to how many plants are required. An exhibition cannot be considered successful, in which the exhibitors were so few as in many instances they were this year. I would suggest for consideration the possibility of fixing a maximum number of varieties, as well as a minimum, and also restricting the number of each variety. The latter form of restriction does appear in some instances, and I think it might be usefully extended to others. The other restriction *i.e.*, the fixing of a maximum number of varieties might discourage the exhibition of the commoner sorts. Of course I would not suggest its application in all cases, and would not interfere with the best collection of fine foliage plants.

Secondly. I would suggest that the plants should be arranged in looser order. Want of space will of course be pleaded, still I think something might be done in the direction. It is quite impossible to judge of the merits of individual plants when they are closely crammed together.

Thirdly. I would ask the exhibitors to give a list of their exhibits, shewing the number of the varieties, and if possible the names.

Fourthly. I would suggest striking out crotons from the list of plants competing for special prizes. For any new variety room might be made by a slight alteration of the description in Class V. now a days, crotons in general are too common to deserve a prize, moreover to produce the small plants which can be sent, no special skill is required.

Fifthly. With regard to XI in Class IV the language is open to exception. What is a single shrub? and, so long as it is grown in Madras why should it be exhibited in the pot in which it was grown. Surely a rule that the plant has been a certain time (say a year) in the same pot would be better. The prize ought, one would think to be a most attractive one, yet there was only one poor exhibit."

Resolved that Mr. Justice Shephard be thanked for his suggestion which will be considered when the prize list for next show is prepared.

Medal for Roses.—Read letter from Mr. Eardly Norton dated Dunmore House, 4th March, 1895 :—

"Would your Committee have any objection to my adding Rs. 5—to your prize of Rs. 15—for Roses, and asking you to give me a silver medal in lieu of the money ?"

Resolved that Mr. E. Norton's request cannot be acceded to.

Proposed by Hon. Mr. Arundel and seconded by E. Thurston, Esq., that Col. Moore be elected as Chairman of the Committee.

Financial Statement for January to March, 1895, and March, 1895.

Read and passed.

A. T. ARUNDEL,

Chairman.

H. W. H. COX,

Honorary Secretary.

Financial Statement from January to March, 1895.

RECEIPTS.	AMOUNT.			AMOUNT.			EXPENSES.	AMOUNT.			AMOUNT.		
	RS.	A.	P.	RS.	A.	P.		RS.	A.	P.	RS.	A.	P.
Balance with Messrs. Binny & Co., on 31st December, 1894.	1,496	6	3				Pay of Establishment ...	944	6	2			
							Cooly labour ...	279	10	0			
							Seeds, plants, flowers, &c. ...	142	9	10			
Do. in hand, receipt acct. on 31st December, 1894.	209	12	6				Manure, pots, sand, &c. ...	55	8	0			
							House, water, and lightning tax ...	45	12	0			
							Red Hills water supply ...	57	11	9			
Do. in hand, expense acct. on 31st December, 1894.	30	13	1				6 new garden seats ...	156	0	0			
							Rain gauge stand and foundation..	49	7	3			
				1,736	15	10							
By sale of seeds from January to March, 1895...	255	3	3				Subscription in advance for Botanical Magazine & Gards.' Chronicle.	66	1	0			
Do. plants. ...	1,066	10	0				Flower Show-Prizes, coolies,						
Do. sundries. ...	197	2	6				refreshments, &c., &c. ...	1,107	4	4			
							Other expenses ...	281	9	6			
Do. admission ticket at Flower Show...	926	14	0								3,235	15	10
							Balance with Messrs. Binny, & Co. on 31st March, 1895...	2,136	12	9			
By subscription from Members...	502	0	0										
By Government grant ...	750	0	0				Do. in hand, receipt acct...	39	12	0			
							Do. in hand, expense acct ..	22	5	0			
				3,697	13	9					2,198	13	9
Total Rupees ...	...	...	...	5,434	13	7	Total Rupees ...	...	...	...	5,434	13	7

AGRI-HORTICULTURAL SOCIETY, MADRAS,
2nd April, 1895.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Annual General Meeting of the Agri-Horticultural Society of Madras, held on Saturday, the 30th March, 1894.

PRESENT :

COLONEL G. M. J. MOORE, C.S.I.	HON. MR. J. STURROCK, C.S.
COLONEL FANE SEWELL.	COLONEL H. W. H. COX.
J. L. WALKER, ESQ.	HON. MR. A. T. ARUNDEL, C.S.
E. THURSTON, ESQ.	HON. MR. D. DUNCAN.

It was proposed by Col. Fane Sewell, seconded by Mr. J. L. Walker, and carried unanimously that Colonel G. M. J. Moore, do take the chair.

The Report having been circulated to all the Members present at the Meeting was taken as read :—

Water Supply.—Red Hills Water supplied to the Gardens during the year was in

	Gals.		Gals.
January	126,000	July	170,100
February	246,800	August	120,500
March	213,200	September	229,000
April	219,000	October	160,500
May	222,000	November	161,600
June	157,700	December	243,800

Shewing a total of 2,270,200 gallons at a cost of Rs. 252-3-10. In 1893 we used 3,255,800 gallons at a cost of Rs. 361-12-0.

Monthly Rain Report of Madras, 1894.

Month.	Days on which Rain fell.	Inches. Cents.
January	12th ...	0·39
February	2nd & 3rd ...	1·14
March	,, ...	0—0
April	11, 19 & 29 ...	0·86
May	,, ...	0—0
June	4, 6, 7, 11, 12, 14. 18, 20 & 21 ...	1·54
July	8, to 10, 14 to 17, 25, & 27 ...	1·89
August	2, 3, 5, 7 & 8 ...	3·39
	12, 14 to 16 ...	1·35
	20 to 22 ...	·36
	27 to 31 ...	8·14
September	4, 5, 7 to 10 ..	4·96
	14, 16, 19 & 21 to 24 ...	1·45
October	6, 10, 12, 14 ...	1·17
	17 to 24 ...	8·89
	30 & 31 ...	·95
November	1, 4, 5 & 11 ...	3·89
	14 to 19 ...	3·90
	24 to 30 ...	2·76
December	1, 9, 10, 19 & 20 ...	0·74
	Total inches...	47·77

Rumex hymenosepalus.—Tanning material.—Another sowing of the seed was made in November: the young plants had the advantage of the cold weather to start in and have grown as large as those sown fifteen months ago, with fine healthy growth ; but no flowers have appeared as yet.

Agave rigida var. sisalana.—We have at present planted out 14 large plants each about 5 to 5½ feet high, the largest leaf measuring 54 inches long by 4 inches broad ; 36 smaller sized plants, 3 feet or under ; 90 plants, 2 feet or less ; 42 plants about 1 foot high and 95 plants about 6 inches high. These two last are waiting favourable opportunity to plant out. Altogether we have 277 plants and about 30 more suckers just beginning to show from the base of the old plants.

Exchange of Publications.—Copies of our Proceedings were as usual sent to the Government of India, Kew, and the

principal Botanic Gardens at home, in India, and the Colonies, to each of our correspondents and to all members of the Society.

Seeds and Plants distributed to Botanic Gardens.

Erythroxylon Coca seed	20 oz.
Victoria Regia, (Madras Medical College, Trevandrum, Bangalore, Gwalior, Oodeypore, and Washington) in all	34 seeds and 2 plants
Maram grass (Psamma arenaria)	4 packets of seeds
Plants sent to Calcutta, Bangalore and Port Blair ...	132
Tree and Shrub seeds	872 packets

Seeds, Plants, &c., given to Members gratis.

Casuarina humilis	13 plants
Psamma arenaria	4 packets and 1 lb. seed
Asparagus plumosus	8 plants
Achimenes of different varieties	207 pots
Bambusa siamensis	40 plants
Palms of sorts...	153 plants
Victoria regia plants	2 plants
Other garden plants	1,933
Cut flowers, bouquets, wreaths, &c.	50
Vegetable seeds	990 packets
Flower seeds	1600 packets
Tree and shrub seeds	53 packets

Seeds, Plants, &c., sold.

Plants.

Palms	120
Crotons	227
Cocoanut palms ...	175
Rain trees	225
Mangoe grafts. ...	105
Guava grafts.. ...	22
Lime and orange grafts ...	44
Figs (Ficus carica) ...	28
Other fruit trees, such as bilimbi, custard apple &c.	73
Plantains ...	75
Mango seedlings ...	2,000
Tamarind plant ...	500
Jacks	500
Banyan	250
Cloves	23
Nutmeg	20
Cardamum	12
Cinnamon	24
Caladimus	60
Cuttings of crotons, climbers, shrubs, &c. ...	512
Ornamental plants. flowering shrubs, climbers, &c.	1,828

Seeds.

Inga dulcis ...	lb.	331	0
Grevillea robusta.	lb.	13	15
Hurriali grass ...	lb.	17	0
Guinea grass ...	lb.	3	0
Casuarina ...	lb.	10	1
Lucerne ...	lb.	54	4
Albizzia moluccana	lb.	31	13½
Victoria regia ...seeds		13	0
Tree and shrub seeds packets		42	
Eucalyptus seeds. packets		16	
Flower seeds ... packets		1,382	
Vegetable seeds. packets		1,406	

Sundries.

Leaf mould-carts 4 and baskets	3
Wardian case	1
Plants lent ...	1,350
Realised by sale of mangoes, oranges, firewood, &c.	Rs. 35 3
Flowers, wreaths, bouquets, crosses and button holes	477

Library.—The following books and periodicals have been added to the Library during 1894 :—

1. Supplied gratuitously.

Dictionary of the Economic Products of India, vol. VI. part 4.
Tropical Agriculturist, 1894.
Bulletin of the Botanical Department, Brisbane, 1894
" " " Jamaica, 1894.
Indian Forester, 1894.
Kew Bulletin of Miscellaneous Information, 1894.
Proceedings and Journal of the Agricultural and Horticultural Society of India, October 1893 to September 1894.
Bulletin of the Department of Land Records and Agriculture, Madras, 1894.
Journal of the Royal Horticultural Society, Chiswick, parts 1 and 2 of XVIII vol. and 2 and 3 of vol. XVI.
Flora of British India, by Sir J. D. Hooker, vol. VI. part 4.
" " Index to the natural orders and genera, by J. T Fiddian, M.A. 1894.
Hand book to the Flora of Ceylon, by Dr. H. Trimen, part II. plates XXVI-L
Proceedings of the Royal Colonial Institute for 1893-94.
Records of the Geological Survey of India, parts 2 and 4 of vol. XXVI. and 1 and 4 of vol. XXVII.
Memorandum on the Resources of British India, by George Watt, 1894.
The Forest trees of Mysore and Coorg, by J. Cameron, 3rd Edition, 1894.
Bulletin of the Botanic Garden, Trinidad, for July and October 1894.
Records of the Botanical Survey of India, parts 1 and 2 of vol. I.

II.—Acquired by Purchase.

Gardeners' Chronicle for 1894.
Botanical Magazine for 1894.
Hooker's Icones Plantarum, 4th Series Vol. II. parts 2 & 3, Vol. III. part 4 and Vol. IV. parts 1 & 2.
Ormerod's Text book on Agricultural Entomology.
Index to Indian Forester from Vol. 1 to 17.

Acknowledgments.—The Committee has great pleasure in recording their thanks to Rev. Mr. G. Richter, Mr. E. Thurston, Mr. W Strachan, Mr. Wylie, Mr. T. J. Ferguson, Mr. H. Man, Mr. J. Beck, Honorable Mr. A. T. Arundel, and the Consulting Architect to the Government of Madras, for communication made to the Society during the year.

Flower Show.—The show that was held on Saturday the 24th February, 1894 was a fair average one considering the preceding very dry weather both at Bangalore and Madras. A detailed notice of the show is given on page 85 *ante*. The following table shews the receipts from the sale of admission tickets in the last 12 years.

	1st Class from 7 a.m. to 12 noon.			2nd Class from 12 noon to 4 p.m.			3rd Class from 4 to 6 p.m.			Total Rs.	A.	P.
1882	440	0	0	141	4	0	84	14	0	666	2	0
1883	427	0	0	148	8	0	91	10	0	667	2	0
1884	375	0	0	174	12	0	106	14	0	656	10	0
1885	328	0	0	144	0	0	85	12	0	557	12	0
1886	425	0	0	162	0	0	107	2	0	694	2	0
1887	349	0	0	175	2	0	116	15	0	641	1	0
1888	347	0	0	181	4	0	117	8	3	645	12	3
1889	404	0	0	202	0	0	108	6	0	714	6	0
1890	434	0	0	217	0	0	114	4	0	765	4	0
1891	369	0	0	214	8	0	121	0	0	704	8	0
1892	No Flower Show.											
1893	392	0	0	188	12	0	90	0	0	670	12	0
1894	453	0	0	252	4	0	133	10	0	838	14	0

Proceedings of Government.—The Society as usual received reports on Agricultural matters &c. in the several Provinces of India and Burma. These reports have been acknowledged in the Monthly proceedings as they were received.

Government Grant.—The Monthly allowance of Rs. 250, the extra grant of Rs. 500 and the special grant of Rs. 500 for prizes to exhibits of economical value in the Annual Flower Show have been received. Budget estimate for 1895-96 was submitted on the 14th September and 4th October, and the amount Rs. 4000 was sanctioned by the Government (*vide* G. O. dated 11th October, 1894, No. 849 Financial) The Committee desires to record its thanks to Government for their liberal assistance.

Gardeners.—During the year 8 gardeners were engaged for the local gardens and 2 for up-country.

Committee Members.—During the year Dr. A. Bourne, Hon. J. Grose, Hon. H. Clogstoun and Messrs D. A. J. Crombie, C. Slater and C. W. Connington resigned their seats on the Committee and their places were filled up by Messrs E. Thurston, D. E. W. Leighton, W. H. Holmes, W. H. Oakes, Hon. J. Sturrock, and Hon. D. Duncan.

Colonels G. J. M. Moore and H. W. H. Cox continued to hold the offices of Chairman and Honorary Secretary respectively throughout the year.

Members.—During the year 14 members joined the Society and 24 Members resigned or ceased to subscribe owing to absence from India, 3 died and 3 have been struck off as defaulters. The total number of subscribing Members at the end of 1893, was 102 (62 A and 40 B Class) and at the end of 1894, 86 (58 A and 28 B Class).

Income and Expenditure.—The income of the Society in 1894, from all sources amounted to Rs. 10,546-7-8, the expenditure during the year was Rs. 10,670-12-6, as compared with Rs. 11,161-13-0 and Rs. 10,633-8-11 in 1893. Details will be found in the statement attached to this report.

Exchange of Seeds.—During the year seeds, &c., were forwarded to the undermentioned gardens and correspondents:—

Allahabad	...	J. Phillips, Esq. Supt., Government Gardens.
Adelaide	...	M. Holtze, Esq., F. L. S. Director, Botanic Gardens.
Bangalore	...	J. Cameron, Esq. Superintendent, Mysore Government Gardens.
Berkeley	..	E. W. Hilgard, Esq., California U. S. A.
Berlin	...	The Director Royal Botanic Gardens.
Buenos Ayres	...	Senōr Charles Thays, Calle Caceros Argentine Republic
British Honduras	...	James McNair, Esq., Curator, Botanic Gardens.
Bombay	...	G. K. Krumbiegel, Esq., Municipal Gardens.
Calcutta	...	The Honorary Secertary, Practical Institution of Horticulture Cossipore.
Do.	..	Dr. G. King, Superintendent, Royal Botanic Gardens.
Calicut	...	T. J. Ferguson, Esq.
Coorg	...	Rev. G. Richter, Mercara.
Caff Reinet	...	J. C. Smith, Esq., Curator, Gardens & Public Parks.

Gwalior	...	C. Maries, Esq., Supt., State Gardens, Gwalior.
Grenada	...	W. E. Broadway, Esq., Curator, Botanic Gardens.
George Town	...	G. S. Jenman, Esq., Director, Botanic Gardens, British Guiana.
Hobart Town	...	F. Abbot, Esq., Supdt., Botanic Gardens.
Jamaica	...	William Fawcet, Esq., Supdt., Public Gardens.
Java	...	The Director, Botanic Gardens Buitenzorg.
Karachi	...	W. Strachan, Esq., Superintendent, Municipal Gardens.
Kew	...	W. T. Thiselton Dyer, Esq., Director, Royal Gardens.
Kattywar	...	J. Beck, Esq., Supdt., State Gardens, Morvi.
Lahore	...	H. G. Hein, Esq,. Supdt., Government Gardens.
Lucknow	...	M. Ridley, Esq., Superintendent, Horticultural Gardens.
Madras	...	The Consulting Architect to the Govt. of Madras.
Do.	...	W. Hamilton Holmes, Esq.
Do.	...	The Principal of the Medical College, Madras.
Melbourne	...	Baron Ferd, Von Mueller, Government Botanist.
Mysore	...	W. S. Crawford, Esq., Sucklaspur, Hassan.
Natal	...	J. Medley Wood, Esq., Curator, Botanic Gardens, Durban.
Naples	...	Messrs. Damman & Co.
Nepaul	...	The Resident, Katmandoo.
Oodeypore	...	T. H. Storey, Esq., Superintendent, Sajjan Nivas Gardens.
Ootacamund	...	A. Jamieson, Esq., Curator, Government Gardens
Poona	...	G. M. Woodrow, Esq., College of Science.
Pondicherry	...	The Superintendent, Public Gardens.
Paris	...	Professor Maxime Cornu, Director, Museum and Gardens.
Pamplemouses	...	William Scott, Esq., Director, Botanic Gardens.
Pennsylvania	...	Revd. E. H. Johnson, D.D. Chester, U.S.A.
Port Blair	...	H. Man, Esq., Andaman Islands.
Peermaad	...	Mrs. Munro.
Rockhampton	...	J. S. Edgar, Esq., Botanic Gardens.
Saigon	...	Dr. Regnier, Director, Botanic Gardens.
Saharanpur	...	The Superintendent, Government Botanic Gardens.
St. Petersburgh	...	The Director, Imperial Botanic Gardens.
Trinidad	...	J. H. Hart, Esq., Supdt, Royal Botanic Gardens.
Trevandrum	...	H. S. Fergum, Esq., Superintendent, Government Gardens.
Washington	...	The Director, Dept. of Agriculture, Experimental Station.

Seeds and Plants received during the year from:—

Bangalore	...	John Cameron, Esq., F.L.S., Superintendent, Botanic Gardens and Museum.
British Guiana	...	George S. Jenman, Esq., Supt., Botanic Gardens, George Town.
Berkeley	...	E. J. Wickson, Esq., University of California.
Calcutta	...	The Secretary, Agricultural and Horticultural Society of India.
Do.	...	The Superintendent, Royal Botanic Gardens.
Calicut	...	T. J. Ferguson, Esq.
Coonoor	...	Thomas Stanes, Esq.
Ceylon	...	Dr. Henry Trimen, F.L.S. &c., Director, Royal Botanic Gardens, Peradeniya.
Jamaica	...	William Fawcett, Esq., Supdt. Department of Public Gardens and Parks.
Java	...	The Director, Botanic Gardens, Buitenzorg.
Kattiywar	...	J. Beck, Esq., Superintendent, State Gardens, Morvi
Karachi	...	W. Strachan, Esq., Supdt. Municipal Gardens.
Nepaul	...	M. R. Wylie, Esq., C. S. I., Katmandu.
Kew	...	W. T. Thiselton Dyer, Esq., Director, Royal Gardens.
Lahore	...	H. G. Hein, Esq., Superintendent, Government Agri-Horticultural Gardens.
Madras	...	Colonel H. W. H. Cox, Egmore.
Do.	...	Miss Oxley, Royapett.
Do.	...	J. L. Walker, Esq., Teynampett.
Do.	...	W. Hamilton Holmes, Esq., Madras Club.
Do.	...	The Superintendent of the Medical College.
Mangalore	...	Mr. N. Narasinga Row, Court Road.
Melbourne	...	Baron Ferd. Von Mueller, Government Botanist.
Naples	...	Messrs. Damman and Co.
Ootacamund	...	A. Jamieson, Esq., Curator Government Botanic Gardens.
Oodeypore	...	T. H. Storey, Esq., Superintendent, H. H. the Maharana's Gardens.
Poona	...	G. M. Woodrow, Esq., College of Science.
Peermaad	...	Mrs. Munro.
Port Blair	...	H. Man, Esq., C. I. E. Andaman Islands.
Rangoon	...	J. N. Johannes, Esq., Government Pensioner, Jail Department.
Saharanpur	...	W. Gollan, Esq., Superintendent, Government Botanic Gardens.
Trichinopoly	...	R. J. H. Porter, Esq., Deputy Conservator of Forests.

Agency.—Enquiries were made during 1894 for various rare and economical plants and seeds, of which the following were procured and supplied.

Nepaul Chilly from Katmandoo.
Acer oblongum.
Acrocarpus fraxinifolius.
Coffea liberica,
Anona Cherimolia.
Kola acuminata—promised.
Theobroma cocao ,,
Acacia decurrens.
Cardamum—Elettaria Cardamomum
Cinnamon—Cinnamomum Tamala.
Nutmeg—Myristica moschata.
Cloves—Caryophyllus aromaticus.
Eucalyptus, several vars.

Efforts were made to procure and supply the undermentioned but failed.

Cytisus proliferus. | Araucaria seeds.

The undermentioned is a list of the plants added to the Gardens during the year :—

Mammea americana from the Director, Botanic Gardens, Jamaica.
Anona Cherimolia do do
Cocos flexuosa do do
Gouania domingensis do do
Ipomæa quinquefolia do do
Arenga saccharifera from the Director, Botanic Gardens, Buitenzorg.
,, obtusifolia do do Java
Euphorbia jacquiniflora from the Botanic Gardens, Saharanpur.
Citrus japonica do do
Polygonum Sachalinense, from Baron Ferd. Von Mueller, Govt. Botanist, [Melbourne.
Atriplex nummularia do do do
Doryanthes Palmeri do do do
Macrozamia spiralis do do do
Psamma arenaria do do do
Dendrocalamus membranaceus do do
Coffea stenophylla from the Director, Royal Gardens, Kew.
Japanese Wine-Berry from Mr. N. Narasinga Row, Mangalore.
Solanum Seaforthianum from the Agricultural and Horticultural Society of India, Calcutta.
Dendrobium aggregatum do do do
,, Pierardii do do do
Ærides adnata do do do
Tobacco (Kuch Behar variety) do do
Chrysanthemums, 65 vars., from the Agri-Horticultural Society, Lahore

Burmese Orchids from Mr. J. N. Johannes, Rangoon and Dr. Poyender Madras.

Erythrina vespertileo from Dr. H. Trimen, Director Royal Gardens, Peradeniya.

Phœnix acaulis from Mr. Woodrow, College of Science, Poona.

Euryale ferox from the Royal Botanic Gardens, Calcutta.

Bambusa Oliveriana. do do

Abutilon Sp. from Mr. J. L. Walker, Madras.

Nyctocalos Thompsonii do do

Ptychoraphis augusta from Mr. H. Man, Port Blair.

Pandanus Mellori do do

Corypha alata do do do

Orania Bentinckia do do

Asparagus plumosus from J. T. Ferguson Esq., Calicut.

Hevea braziliensis do do do

Hymenæa courbaril from Lal Bagh, Bangalore.

Fourcroya gigantea var. variegata do

Osteospermum moniliferum do do

Dombeya natalensis do do

Celestial Pepper from Mr. J. Beck, Superintendent, State Gardens, Morvi, Kattywar.

Morus serrata W. Hamilton Holmes, Esq., Madras.

Impatiens Hookerii from the People's Park, Madras.

Rumex hymenosepalus from Mr. E. J. Wickson, University of California, Berkeley.

Auditors.—The thanks of the Society are due to Messrs. Shaw and Paul, who kindly undertook the labour of auditing the accounts. Their report is appended.

MADRAS, 20*th February*, 1895.

To

THE HONORARY SECRETARY,

AGRI-HORTICULTURAL SOCIETY,

Madras.

DEAR SIR,

We beg to advise that we have audited the Society's account for the year 1894, and have found the same correct.

Enclosed please find the following statements, which shew the working of the Society during the past year.

Financial statement for 1894.

Particulars of expenses for 1894.

Classification of expenses for 1894.

Classification of Receipts for 1894.

Financial statement of seeds, plants, &c., bills from January to December, 1894.

Subscription bill 1894, A. Class.

Subscription bill 1894, B. Class.

Arrears of sale bills, on 31st December, 1894.

Arrears of seeds plants, &c., sold, on 31st December, 1894.

We are,

Dear Sir,

Yours faithfully,

W. S. SHAW,
A. S. PAUL, } *Auditors.*

FINANCIAL STATEMENT FOR 1894.

Receipts.

			Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st December, 1893	Do.	...	1,662	12	0			
Balance in hand as per receipt book	Do.	...	119	2	6			
Do. expense Book	Do.	...	79	6	2			
						1,861	4	8
Government Monthly allowance @ Rs.250 a Month			3,000	0	0			
Do. Extra Grants @ 500 during 1894...			1,000	0	0			
						4,000	0	0
Subscription from Members	Do.	...	1,864	12	0			
						1,864	12	0
Sale of Seeds ...	Do.	...	1,765	15	5			
,, Plants ...	Do.	...	1,030	3	9			
,, Sundries ...	Do.	...	860	1	3			
,, Tickets at Flower Show	Do.	...	838	14	0			
Loan of Plants ...	Do.	...	186	9	3			
						4,681	11	8
		Total Rupees...				12,407	12	4

Expenditure.

	Rs.	A.	P.	Rs.	A.	P.
Expenses as per statement annexed ...	10,670	12	6	10,670	12	6
Balance with Messrs. Binny & Co., on 31st December, 1894	1,496	6	3			
Balance in hand as per receipt book ...	209	12	6			
,, in hand as per expense account ...	30	13	1	1,736	15	10
Total Rupees...				12,407	12	4

PARTICULARS OF EXPENSES FOR 1894.

	Rs.	A.	P.	Rs.	A.	P.
Fixed Establishment				3,926	10	2
Coolies				777	7	3
Petty expenses such as cart hire, packing, cooly &c., recoverable				557	15	3
Petty expenses such as stationery, cooly &c., unrecoverable.				110	5	3
Seeds, English	1,446	11	3			
,, Country	321	7	1	1,768	2	4
Plants				528	12	7
Flowers				85	14	0
Manure and other potting materials				49	0	0
Pots				276	10	0
Garden requisites such as labels, ropes, buckets, knives, repairs to tools &c.				74	15	10
Repairs to large and small fernery, conservatory and orchid house				239	10	1
Repairs to Carpenter's shed, and office and building a new cistern				57	5	6
Red Hills water supply				178	7	1
Quit-rent to cocoanut tope				4	10	6
Rain gauge				18	0	5
Garden seat				10	0	0
Steel punches				47	9	8
Newspapers and periodicals				100	7	8
Books purchased and binding charges				69	1	0
Printing and advertising				197	10	0
Postage on letters and proceedings &c.				99	11	6
Donation for late Ganabathy, office assistant				10	2	0
Flower Show: Prizes awarded and cost of medals	963	8	0			
Flower Show: Refreshments ...	121	6	5			
Flower Show: Printing and advertising ...	111	10	0			
Flower Show: General expenses	285	12	0	1,482	4	5
Total Rupees...				10,670	12	6

W. S. Shaw,
A. S. Paul, } *Auditors.*

Proposed by Mr. Thurston, seconded by Hon. Mr. Sturrock, and carried unanimously that the Report be adopted and published.

The following gentlemen were elected as Members of the Committee for the coming year.

Hon. Mr. A. T. Arundel.	W. H. Oakes, Esq.
Reddy Branson, Esq.	Hon. Mr. J. Sturrock.
Hon. Mr. D. Duncan.	Colonel Fane Sewell.
W. Hamilton Holmes, Esq.	E. Thurston, Esq.
D. E. W. Leighton, Esq.	J. L. Walker, Esq.
Colonel G. M. J. Moore, C.S.I.	Colonel H. W. H. Cox.

Proposed by Hon. Mr. D. Duncan, seconded by Hon. Mr. A. T. Arundel, and carried unanimously that a vote of thanks be accorded to Messrs. W. S. Shaw and A. S. Paul for kindly auditing the accounts for 1894.

Proposed by Hon. Mr. A. T. Arundel, seconded by Colonel G. M. J. Moore, and carried unanimously that a vote of thanks be accorded to Colonel H. W. H. Cox, for his service as Honorary Secretary during 1894.

Proposed by Mr. E. Thurston, seconded by Hon. Mr. Sturrock, and carried unanimously that a vote of thanks be accorded to the Chairman for his conduct in the chair.

MEMBERS OF THE SOCIETY ON 31st DECEMBER, 1894.

President.

The Right Hon'ble Lord Wenlock, G.C.S.I.

Honorary Members.

Bermays, L. A., Esq.
Ferrier, General J. P.
Hooker, Sir J. D., K.C.S.I., C.B. &c.

Extraordinary Members.

Benson, Lieut-General R.
Bidie, Surgeon-General G., C.S.I.
Cleghorn, Deputy Inspector-General, H.
Duff, Sir M. E. Grant, G.C.S.I.
Lawson, Sir Charles A.
Steavenson, Joseph, Esq.
Thanakoti Mudr., Rai Bahadoor, A.
Vizianagaram, H. H. the Maharajah of, K.C.I.E.
Whiteside, W. S., Esq.

Subscribing Members (A Class).

Arundel, Hon. Mr. A. T.
Branson, Hon. J. H., Spring.
Betts, W. S., Esq.
Bobboli, H. H. The Rajah of
Bishop of Madras, The Right Revd. Lord.
Boyson, J. A., Esq.
Branson, Reddy, Esq.
Beck, J., Esq.
Barclay, E., Esq.
Best, Hon. Justice, J. W.
Bannerman, Surgeon Captain W. B.
Collins, Hon. Chief Justice Sir Arthur, J. H.
Cox, Colonel H. W. H.
Clogstoun, Hon. H. F. C.S.I.
Deane, G. W. Esq.
Deane, B. O'M Esq.
Duncan, Hon. D.
Elialvar Naidu, M. R. Ry. P.
Evans Surgeon-Captain J. W.
Fiddian, J. P., Esq., M.A.
Ferguson, T. J., Esq.
Gajupathee Row, Rajah Sahib, G. N. C.S.I.
Gill, F. M. G., Esq.
Gooboor Estate, Manager of
Grose, Hon. Mr. J.
Harding, H. O. D., Esq.
Keess, W., Esq.
Kyd, John Esq.
Moore, Colonel G. M. J., C.S.I.
Martyn, H. A., Esq.
Muthusawmy Iyer, Hon. Justice Sir (late)
Mahomed Sheriff Khan Bahadur.
Meynell, E., Esq.
Muddukrishna Yachandra Bahadoor Rajah V.
Napier, A. S. Esq.
Norton, Eardley, Esq.
Nicholas, J. P., Esq.
Oakes, W. H., Esq.
Oakes, A. W. D., Esq.
Powell, E. B., Esq.,
Quinn, M. T. Esq., M.A.
Ramnaad, Rajah of
Robertson, Surgeon-Captain R.
Romilly, Hon'ble Mr. George
Stanes, Thomas, Esq.
Smith, Michie, Esq.
Sewell, Colonel Fane
Sah Man Mull, Esq.
Thorburn, W. M., Esq.
Thurston, Edgar, Esq.
Taylor, W., Esq.
Thandavaroya Pillay, A. P. Esq.
Travancore H. H. the Maharajah of
Venugoti, Venugopala Yachandra Bahadoor
Wenlock, H. E. the Right Hon'ble Lord, G.C.S.I.
Walker, J. L., Esq.
Zemindar of Parlakemedy
Zemindar of Ettayapuram

(B Class)

Bliss, Hon. Mr. H. W., C.S.I.
Chenstal, Row, Hon. Mr. P., C.S.I.
Cheragh Ali Azam Jah Jung.
Crombie, D. A. J. Esq.
Feast, Revd. R. B.
Krishnamurti Iyengar, T., Esq.
Kerwan, L. E. Esq.
Leighton, D. E. W., Esq.
Logan, David, Esq.
Mahamud Mirza Ismail Khan Bahdr.
Mahamud Sufther Hussain Sahib
Mackpail, Revd. E. M.
Morris, R., Esq.
Meyer, W. S., Esq.
Morjoribanks, J. Alexander, Esq.
Rama Row, M.R.Ry. T. C.S.I.
Rawlins, T. W., Esq.
Seetharamiah Garoo Rajah C. V.
St. Leger, W. D. Esq.
Streenivasa Row, Sahib (Jagherdar of Arnee)
Sandoor, H. H. the Rajah of
Shaw, W. S., Esq.
Vasudeva Row, R. H., Esq.
VanGeyzell, Surgeon-Major.
Venkasawmy Row, Dewan Bahdr. T.
Wright, W., Esq.
West, H. C., Esq.
Underwood, Col. T. O.

Proceedings of the Agri-Horticultural Society of Madras, for April, 1895, held on 6th May, 1895.

PRESENT:

COLONEL G. M. J. MOORE, C.S.I., *Chairman.*

HON'BLE MR. A. T. ARUNDEL.
" " J. STURROCK.
HON'BLE DR. D. DUNCAN.
COLONEL H. W. H. COX, (*Honorary Secretary*).

The following contributions were made to the Library:—

Bulletin of the Botanical Department, Jamaica, for February, 1895.

Kew Bulletin of Miscellaneous Information for February, 1895.

Indian Forester, for March, 1895.

Tropical Agriculturist, for March, 1895.

Report on Natal Botanic Gardens for the year 1894, and also Colonial Herbarium Report for 1894.

Annual Report of the Botanic Gardens, Graff-Reinet, for 1894.

Annual Report of the Department of Agriculture, Brisbane, for the year 1893-94.

Report of work of the Agricultural Experiment Stations of the University of California, for 1892-93 and part of 1894.

Records of the Geological survey of India, part I. of Vol. XXVIII.—1895.

Agricultural Bulletin of the Malay Peninsula for January, 1895.

Report on the Nagpur Experimental farm, for the year, 1893-94.

Revue Agricole et journal de la Chambre D'Agriculture de L'isle Maurice, March, 1895.

Wholesale Catalogue of Dutch flower roots from M. Van Waveren & Sons, Hillegom, Holland.

The following contributions were made to the Gardens during the month :—

Seed of Filicium decipiens from Mr. G. M. Woodrow, College of Science, Poona.

Bulbs of thirteen varieties of Achimenes from Mr. P. Lancaster, Secretary Agri-Horticultural Society of India, Calcutta.

Seed of the undermentioned from the Director, Botanic Gardens, Buitenzorg, Java.

Acrocarpus fraxinifolius
Bignonia velutina
Cæsalpinia ferruginea
Do. Sappan
Cassia glauca
Do. fistula
Do. lævigata
Do. florida
Cedrela serrulata
Daphnophyllum bacanum
Drimysperma ambiguum
Eriodendron anfractuosum
Elæocarpus augustifolius
Flacourtia Rukem
Gardenia tubifera
Heynia sumatrana
Livistona rotunda
Do. Hoogendorphii
Macrotropis sumatrana
Melaleuca cajputi
Moringa pterygosperma
Melia azadirach
Do Candollei
Mesua ferrea
Oncosperma filamentosa
Peltophorum sp.
Pierardia racemosa
Do. dulcis
Pinanga Kuhlii
Ptychosperma augustifolia
Payena Lierii
Sindora sumatrana
Samadera indica
Salmalia malabarica
Tarakthogenos Blumei
Vitex leucoxylon

Twenty-five seeds of Kola (Sterculia acuminata) from the Director, Royal Botanic Gardens, Grenada.

One packet of seed of Ficus macrophylla from Mr. J. H. Stephen Curator, Lal Bagh, Bangalore.

Canna seeds from the Superintendent, Cossipore Gardens, Calcutta.

The undermentioned seeds from Mr. J. Medley Wood, Director, Botanic Gardens, Durban, Natal :—

Aspalathus spinosus
Antholyza caffra
Agapanthus umbellatus var. [albus
Crotalaria globifera
Calpurnia lasiogyne
Dais cotinifolia
Gomphocarpus sp.
Jatropha sp.
Kniphofia modesta
Littonia modesta
Momordica involucrata
Oncoba kraussiana
Plectronia spinosa
Solanum duplo-sinuatum
Sopubia Dregeana
Scilla rigidifolia var. verrucosa
Streptocarpus sp.
Tephrosia macropoda
Do elongata
Tulbaghia acutiloba var. major
Vigna lateola
Vitis humilis
Zanthoxylum capense

Seed of Swietenia macrophylla (5 lb.) and Sterculia alata (2 lb.) from Dr. George King, Superintendent, Royal Botanic Gardens, Calcutta.

Seed of Achras sapota (Sapodilla plum) from Mr. Michie Smith, Nungumbakum.

The undermentioned is a list of the seeds collected in the gardens for distribution to members and Botanic gardens :—

Bauhinia acuminata
Dracæna circulosa maculata
Meyenia erecta
Plumeria grandiflora (?)
Cassia fistula
Tristellateia australasica
Cassia floribunda
Bignonia suberosa
Adenanthera pavonina
Calophyllum inophyllum
Stenolobium stans
Sterculia fœtida
Cæsalpinia Sappan
Triumfetta Sp.
Santalum album
Lagerstrœmia Flos-Reginæ
Wrightia mollissima
Pterospermum suberifolium
Acacia sundra
Aristolochia elegans
Hibiscus vitifolius
Solanum Seaforthianum
Vinca alba
Cassia auriculata
Dalbergia frondosa
Inga Saman
Bauhinia tomentosa
Cassia Sp. from Mount Sinai
Sapindus trifoliata
Spathelia simplex
Wrightia antidysenterica
Chenopodium album

Araucaria Seeds.—Read the following letter from Mr. J. S. Edgar, Director, Botanic Gardens, Rockhampton, dated 2nd April 1895 :—

"I expected to have been in a position to have forwarded you a supply of Araucaria seeds long before now. No good seed has been procurable until a few days ago. A parcel of Bunya nut (A. Bidwillii) has to day been posted to your address which I hope you will receive in good condition. They have been carefully packed in damp moss. If they will not carry fresh in this way* your only chance is strong plants packed in Wardian cases. I suppose you know that the Bunya forms a bulbil 5 or 6 inches beneath the surface and from it the stem springs up, the small end is simply inserted about an inch in the soil : in a few months the connection between the shell and the young plants ceases. The shells are better removed as they often interfere with the plants getting above ground. It is generally from six to eight months after sowing that the young plants make their appearance.

As it is rather a slow process raising Araucarias from seed procured from a distance. If you will forward me a Wardian case filled with the best species of Orchids you may have available, the case can be filled with plants of A. Cookii, Cunninghamii, and Glauca, this only a variety but good for lawn specimens, and Bidwillii. Two hundred plants can be packed in a good sized case, they are very hardy when they are 6 or 8 inches high that is when three to four years old.

Most of the seeds you so kindly sent me germinated very freely."

*The Araucaria seeds unfortunately were dead on arrival.

Read letter from Mr. P. Lancaster, dated Calcutta, April, 1895, acknowledging Spathelia simplex seeds and thanking us for our promise of Alocasia metallica and zebrina. In return he promises to get us a set of Aristolochias and a few Birds-nest ferns. He notes also that owing to the unusual dry season in Calcutta that Quassia amara, a plant not seen in fruit for the last fifteen years, has at last borne a crop.

Our plants in Madras bear fruits regularly.

Accounts for April, read and passed.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras for May, 1895, held on Monday, the 3rd June, 1895.

PRESENT:

W. HAMILTON HOLMES, ESQ., *in the Chair.*

W. H. OAKES, ESQ.
D. E. W. LEIGHTON, ESQ.
COLONEL H. W. H. COX, *Hony. Secretary.*

The following contributions were made to the Garden Library during the month :—

Proceedings and Journal of the Agricultural and Horticultural Society of India for January to March, 1895.

Report on the Arboriculture operations, N. W. Provinces and Oudh for the year ending 31st March, 1894.

Report on the operations of the Department of Land Records and Agriculture, North West Provinces and Oudh for the year ending 30th September, 1894.

Report on the Government Botanical Gardens and Parks, Bangalore, for the year 1893-94.

Annual Report of the Botanic Gardens, Grenada for 1893.

Journal of the Royal Horticultural Society, Chiswick Vol. XVII, parts 3 and 4, April 1895.

The Indian Forester, Vol. XXI No. 4, April, 1895.

Annual Administration Report of the Forest Department, Madras Presidency for the twelve months ending 30th June, 1894.

The Agricultural Ledger, No. 17 on Ricinus communis.

Experiment Station Record, U. S. Department of Agriculture, Washington, Vol. VI. Nos. 5, 6 and 12.

The following contribution were made to the Gardens during the month :—

Two pounds of Castor Oil seed (large variety) from Mr. R. S. Joshi, Superintendent, Horticultural Gardens, Nagpore.

Sixteen pounds of seed of Tectona grandis from Messrs. Burnett and Son, Calicut.

Tea seed from Mr. Thomas Stanes, Coonoor.

The undermentioned is a list of seeds collected at the Gardens for distribution to members and Botanic Gardens :—

Acacia arabica
Hibiscus Collinus
Myrospermum toluiferum
Anogeissus acuminatus
Antigonon leptopus
Hura crepitans
Guazuma tomentosa
Centrosema Plumieri
Colvillea racemosa
Cordia tectonæfolia
Bauhinia candida
Hiptage Madablota
Livistona mauritiana
Barleria prionitis
Ruellia tuberosa
Ficus religiosa
Kentia Wendlantiana
Stachytarpheta urticæfolia
Justicia ecbolium
Cupania canescens
Butea frondosa
Aleurites triloba
Pterocarpus indicus
Erythrina indica
Ficus tsiela
Feronia elephantum
Parkia biglandulosa
Ægle marmelos
Thespesia populnea
Thevetia nereifolia
Phœnix sylvestris
Spathodea crispa
Terminalia tomentosa
Anona reticulata
Sapindus trifoliata
Sideroxylon Sp.
Gmelina arborea
Cassia Roxburghii
Bombax malabaricum
Colubrina asiatica
Gossypium arboreum
Albizzia amara
Prosopis spicigera
Bignonia megapotomica
Walsura piscidia
Cassia nodosa

Read letter from Mr. D. Morris, Assistant Director, Royal Gardens, Kew, dated 17th April, 1895, asking for Pedalium murex seed.

A small box of the seed was despatched as requested, and at the same time Mr. Morris was asked if he could assist us in getting seeds of Coffea stenophylla, Hibiscus coccineus and Tithonia tagetiflora.

Recorded.

Read Memorandum from the Secretary, Revenue Settlement, Land Records and Agriculture, calling attention to Proceedings of Board of Revenue, No. 1290, dated 24th March, 1890 and to the fact that Mr. Clogstoun left India in April last.

Resolved that as the Director of Land Records and Agriculture is an ex-officio member of the Committee, notice of meetings &c., shall be sent in future to the Director for the time being.

Proposed by W. H. Oakes, Esq., and seconded by D. E. W. Leighton, Esq., that in future seeds be procured from an English Florist.

Financial statement for May, read and passed.

W. HAMILTON HOLMES,

Chairman.

H. W. H. COX,

Hony. Secretary.

Proceedings of the Agri-Horticultural Society of Madras for June, 1895, held on 1st July, 1895.

PRESENT:

COLONEL G. M. J. MOORE, C.S.I., *Chairman.*

HON'BLE MR. A. T. ARUNDEL. | COLONEL H. W. H. COX,
J. L. WALKER, ESQ. | *Hon. Secretary.*

The following contributions were made to the Library during the month:—

Bulletin of the Royal Botanic Gardens, Trinidad for April, 1895.

Tropical Agriculturist for May and June, 1895.

Records of the Geological Survey of India, Vol. XXVIII part 2., 1895.

Experiment station record of the U. S. Department of Agriculture, Washington, Vol. V. Nos. 5, 7, 8 and 12 and also Bulletin No. 21 of the same Department.

Bulletin of the Botanical Department, Jamaica for April, 1895.

Indian Museum notes, No. IV of Vol. III containing an account of the insects and mites which attack the Tea plant in India.

Indian Forester, for May, 1895.

Bulletin of the Department of Land Records and Agriculture, N. P. W. and Oudh, No. 1, 1895.

Transactions of the Queensland Acclimatisation Society from January to March, 1895 and from October to December, 1894.

Sutton's Amateur's Guide in Horticulture for 1895.

Bulletin van het Koloniaal Museum te Haarlem, Maart, 1895.

The following contributions were made to the Gardens during the month:—

One packet of seed of Cedrela Toona from Mr. R. S. Joshi, Superintendant, Horticultural Gardens, Nagpur.

Seed of Araucaria Bidwilli from the Superintendant, Botanic Gardens, Rockhampton, Queensland.

Thirteen rooted cuttings of Tithonia tagetiflora from Mr. G. M. Woodrow, College of Science, Poona.

Eight plants of Asplenium Nidus (Bird's nest Fern) from the Secretary, Agri-Horticultural Society of India, Calcutta.

The undermentioned seeds from Messrs. Damman & Co., Naples:—

Acanthosicyos horrida
Boussingaultia cordata
Hibiscus micranthus fl. roseo
Do. crassinervis
Helianthus californicus fl. pl.
Do. macrophyllus giganteus
Do. anu. nanus fol. variegata
Aster 7 varieties
Ipomæa 7 varieties
Leucanthemum nipponicum
Iberis Timoryi
Lobelia Dortmanniana
Pyrethrum parth. glaucum
Fedia cornicopiæ candidissima
Calliopsis coron. maxima
Humulus japonicus lutescens
Erysimum asperum
Centaurea actor chamæleon

Read letter from Mr. G. M. Woodrow, College of Science, Poona, dated 7th June, forwarding 13 cuttings of Tithonia tagetiflora and adding that. "It is a very showy plant during October and November, it grows 7 to 9 feet in height and spreads freely by seed, but it grows so freely from cuttings that I have never saved seed. I find it useful in furnishing sticks for packing plants."

The cuttings were received in good condition.

Committee Member.—Read letter from Colonel Fane Sewell, dated Madras 18th June, 1895, resigning his seat on the Committee from the 1st Prox. as he is leaving India, shortly.

Obituary.—Read a notice in the Madras Mail of the 22nd June of the late Dr. H. F. C. Cleghorn, stating that he had passed away in Strathvithie, in Fifeshire.

Dr. Cleghorn, joined the Society as a Subscribing Member in 1850, was made Honorary Secretary in 1852, joint Honorary Secretary along with Colonel Reid in the same year, transferred to the Committee at his request in 1856, and in 1860, resigned the Committee Membership on account of ill-health. He was made an Extraordinary Member with the following remarks:—(p. 42. Synopsis of the Society's Proceedings).

"While it is a matter of deep regret to the Committee that the state of Dr. Cleghorn's health demands his leaving India for a short time, they look forward hopefully to his return among them at an early

date. As however, his leaving India necessitates his retirement from the Committee, it is unanimously recommended by them that he should be solicited to accept the post of an ex.-Member, and as such resume his right to take part of in all their Proceedings on his return."

Euryale ferox.—Euryale ferox is now in flower in the large tank in the gardens. It is a close relative of the Victoria regia Water lily. The leaves when full grown average 4 feet across, deep green with crimson veins on the upper surface and of a bright violet colour beneath. The flower is rather small, violet with white centre. The whole plant is very prickly; fruit a nearly round berry swelling out in various places by the growth of the seeds within, and crowned with the connivent persistent sepals. Roxburgh describes it very minutely under the name of Anneslea spinosa and says it is a native of the sweet-water lakes and ponds in the tract of Tippera, Chittagong, &c., to the east of Calcutta where it blossoms most part of the year. The seeds are farinaceous and sold in the public bazaars in Eastern Bengal and eaten by the natives, who consider it light and easily digestible. It is figured in Roxburgh's Plants of the Coast of Coromandel t. III. 244, and in the Botanical Magazine t. 1447, for March, 1812.

Liberian Coffee.—Read the following letter from Mr. H. B. Winterbotham, dated Anda Tode Estate, Vayitri, S. Wynaad 6th May, 1895:—

"I am in receipt of your letter of the 4th May and I shall be glad to give you any information which may interest you regarding Liberian Coffee in which I take a great interest.

"The height of this place above sea is about feet 2,400. The Liberian we find will grow from 500 feet to 3,000 feet. It ripens earlier at the lowest level and takes 14 months from blossom at this elevation to ripen its fruit, but it seems to bear very satisfactorily from 2,000 to 2,500 feet. The small piece from which I am collecting seeds planted 10′×10′ and now 14 years old has averaged over 12 cwts. clean coffee per acre for 8 years past. The trees are now 20 feet high or more, and the fruit has to be picked by small boys with ladders.

"The first two trees planted by me 20 years ago came from Kew. They are now large trees 33 feet high near my bungalow and from these nearly the whole district has been planted, there being now nearly 4,000 acres under this variety planted during the past 6 or 8 years and most of this will soon be coming into bearing and will I believe replace arabian coffee almost entirely at low elevations.

"Temperature during monsoon is steady at about 68° during winter (November to end of January) it is cold at night 50° sometimes running up to 80° in sun in middle of day. From February to May temperature runs up to 85° in the shade.

"Liberian coffee does not mind sun but requires a certain amount of moisture with good drainage and does not like heavy wind. Rainfall here is from 110 to 130 inches a year, very little falls from November to end of March. The country is rather steep and hilly. But the Estates near the ghauts get sometimes 200 inches. Those inland as little as 60. On all these places, there is good Liberian to be seen. The sample of coffee of this giant kind is good ; something like a datestone in appearance, has lately been valued at 85 to 90*s*, in London or say 10*s*, per cwt., less than arabica.

"I am supplying seedlings to planters in large quantities, these if put into nurseries 6″×6″ apart shaded and watered till following June, should be plants 12″ high and ready to go out into the open in pits 20″×20″ The plant does not grow very much the first year; after two years it comes on quickly. We find topping the tree or pruning in any way seems to put them back. Any other questions I shall be glad to answer."

Recorded with thanks.

Read Resolution of the Board's Proceedings dated 15th December, 1894, No. 7637, miscellaneous, requesting to furnish information on Ægle marmelos and Abroma augusta and also samples for the Imperial Institute, London.

Read the Honorary Secretary's reply, dated 12th June, 1895, No. 1061, forwarding samples as for as possible, as also the information asked for.

Financial Statement for June and April to June.

Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Financial Statement for April to June, 1895.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st March, 1895 ...	2,136	12	9				Pay of Establishment from April to June.	1,004	13	10			
Do. in hand, receipt account on 31st March, 1895 ...	39	12	0				Coolies from April to June ...	200	14	0			
Do. in hand, expense account on 31st March, 1895 ...	22	5	0				Flower Show expense, such as medals &c., from April to June.	149	11	0			
				2,198	13	9	Printing and advertising do. ...	55	4	0			
By sale of seeds from April to June, 1895...	158	9	0				Municipal tax for Red Hills water.	62	14	1			
Do. plants do...	162	0	0				Subscription to the Indian Agriculturist from April to June ...	14	4	0			
Do. sundries do...	149	3	0				Garden repairs do. ...	21	12	6			
By loan of plants do...	113	4	0				Seeds do. ...	700	10	5			
Do. Subscn. from Member do...	434	0	0				Plants do. ...	257	8	6			
Do. Govt. grant do...	750	0	0				Binding charges do. ...	20	0	0			
Do. Govt. extra grant do...	500	0	0				Pot and cooly hire do. ...	17	0	0			
							Timber for a new gate do. ...	23	0	0			
							Other expenses, such as cart hire, baskets, Rail charges &c. ...	196	11	3			
							Balance with Messrs. Binny & Co., on 30th June, 1895 ...	1,676	2	8	2,724	7	7
							Do. in hand, expense acct. do ...	6	3	6			
				2,267	0	0	Do. in hand, receipt acct. do ...	59	0	0	1,741	6	2
Total Rupees ...	...	...	...	4,465	13	9	Total Rupees ...	...	...	...	4,465	13	9

Agri-Horticultural Society, Madras, 1st *July*, 1895.

H. W. H. COX, *Honorary Secretary.*

Proceedings of the Agri-Horticultural Society of Madras for July, 1895, held on Monday the 5th August, 1895.

PRESENT:

COLONEL G. M. J. MOORE, C.S.I., *Chairman.*

HON'ABLE MR. J. STURROCK. | W. T. HAMILTON-HOLMES, Esq.

COLONEL H. W. H. COX, *Honorary Secretary.*

The following contributions were made to the Library during the month :—

Indian Forester for June, 1895.

Revue agricole et Journal de la chambre D'Agriculture de L'Ile Maurice, Juin, 1895.

Kew Bulletin of Miscellaneous information for April and May 1895.

Bulletin of the Botanical Department, Jamaica for May, 1895.

The Tropical Agriculturist for July, 1895.

U. S. Department of Agriculture—Experimental Station Record Nos. 9 and 10 of Vol. VI. 1895.

Bulletin of the University of California for May, 1895.

Catalogue de plantes des Jardins Coloniaux de Pondichery, 1894.

Proceedings of the Madras Government dated 27th June, 1895, reviewing the Administration Report.

The following contributions were made to the Gardens :—

A packet of seed of Exacum zeylanicum from the Superintendent of Agriculture, Colombo.

A packet of Melon seed from Mr. J. Beck, Superintendent, State Gardens, Morvi.

A few plants of Chrysanthemum from Mrs. Emery, Teynampett, Madras.

Seed of Passiflora Jenmanii from the Botanic Gardens, British Guiana.

Seed of the undermentioned from Mr. W. R. Guilfoyle, Director, Botanic and Domain Gardens, Melbourne.

Eucalyptus calophylla
Do. ficifolia
Do. Lehmannii
Swainsonia galegifolia var.
Doryanthes Palmerii
Kennedya rubicunda
Do. prostrata

Two pounds of seed of Swietenia Mahogani from the Superintendent, Royal Botanic Gardens, Calcutta.

Victoria Regia.—Read letter from Mr. W. Nock, Acting Director, Royal Botanic Gardens, Peradeniya, dated 22nd June, 1895, requesting a case of the plants and a few seeds to be sent as His Excellency the Governor Sir A. E. Havelock, G.C.M.G., is anxious to re-introduce the plant into Ceylon.

Six plants were packed in a Wardian Case and sent per S. S. "Chyebassa" on the 15th July, 1895, and also 24 seeds in two batches on the 28th and 29th June.

Rain gauge.—The stand made in the Madras School of Arts was fixed on the 11th May, 1895. The following are the measurements of rain collected in the Garden.

	No. of days, rain fell.	quantity.
May ...	1	1·15
June ...	3	0·46
July ...	16	4·97
	Total inches	6·58

Revision of Prize List for the Show to be held in February, 1896.—Resolved that in order to exclude ill-grown or immature plants which are sent in simply to swell a collection, the following be added to condition 2, "and they may disqualify any exhibits which in their opinion contain ill-grown or immature plants."—

Class IV.—XI to be altered by omission of the words "in which it is exhibited."

" IX the words "and not more than one specimen of each variety" to be added.

" VIII, X, XII, XIV and XV—add "not more than two specimen of each variety."

The prizes for the special list will be considered at the next meeting.

Financial Statement for July, 1895.—Read and passed.

G. M. J. MOORE,
Chairman.

H. W. H. COX,
Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for August, 1895, held on the 2nd September, 1895.

PRESENT:

COLONEL G. M. J. MOORE, C.S.I., *Chairman.*

J. L. WALKER, ESQ. | Hon'ble DR. D. DUNCAN.
D. E. W. LEIGHTON, ESQ. |

COLONEL H. W. H. COX, *Honorary Secretary.*

The following contributions were made to the Library:—

Proceedings of the Tenasserim Agri-Horticultural Society, Moulmein for May, 1895.

Report on the Botanic Gardens, British Guiana and their work for the year 1893-94.

Report of the Department of Land Records and Agriculture, Central Provinces for the year, 1893-94.

Indian Forester for July, 1895.

Transactions of the Queensland Acclimatisation Society from April to June, 1895.

The Agricultural Ledger:—1894, No. 3, Farm-yard manure; No. 19, Silk; No. 20, Borassus flabelliformis. 1895.—No. 1, Acacia catechu; No. 2, Report on Indian Coals; No. 3, Crops and Climatic conditions.

Report of Proceedings of the Royal Colonial Institute, Vol. XXVI for 1894-95.

Tropical Agriculturist for August, 1895, Vol. XV, No. 2.

Annual Note on Crop Experiments in Assam, for 1894-95.

Report of the Secretary of Agriculture, Washington for 1893—and Experimental Station Record of the U. S. Department of Agriculture, Washington, Vol. VI, Nos. 1, 2, 3 and 4, from the Smithoman Institution, Bureau of International Exchanges, Washington, D. C.

Bulletin of the Botanical Department, Jamaica, for June, 1895.

The following contributions were made to the Gardens:—

Two measures of Bamboo seed (Dendrocalamus stricta) from Mr. H. J. A. Porter, District Forest Officer, Trichinopoly.

One hundred and ten Cola acuminata seeds from the Director, Botanic Gardens, Grenada.

Chrysanthemum plants from Mrs. Emery, Teynampett.

A packet of seed of Cleome spinosa from Mr. E. J. H. Ellis, People's Park.

A box of seed of Cyphomandra betacea (Tree Tomatoe) from Mr. Charles Gray, Coonoor.

A packet of seed of Nelumbium luteum from the Director, Botanic Gardens, Jamaica.

Seed of Widdringtonia Whytei ("M'Lanji Cypress") from the Director, Royal Gardens, Kew.

Kola Seed.—Two boxes containing in all 110 fresh seed of Cola acuminata were received from the Director, Botanic Gardens, Grenada, on the 2nd August, 1895.

50 seeds were sown in the Gardens and the remaining 60 seeds distributed to the undermentioned places.

15	seed to	Mr. F. J. Ingleby, Public Gardens, Trevandrum.
15	„	Mr. T. J. Ferguson, Calicut.
15	„	Mr. W. Hamilton Holmes, Madras, for trial in Mysore.
5	„	Mr. A. D. J. Achart, Superintendent, Public Gardens, Pondicherry.
10	„	Mr. H. Man, Port Blair.

Seeds.—Flower and Vegetable Seeds were received during June, 1895, for up-country subscribers and sale, from Messrs. Vilmorin-Andrieux and Co., and Sutton and Sons, respectively. The seeds, have, as usual, been tested by the Superintendent and found good.

Victoria Regia plants to Ceylon:—Read the following letter from Mr. W. Nock, acting Director, Royal Botanic Gardens, Peradeniya, dated 27th May 1895.

"I have the pleasure to acknowledge the receipt of a Wardian case, addressed to His Excellency the Governor, containing 6 plants of *Victoria Regia*. I met them in Colombo on 20th instant, the day they arrived, so that they were only 5 days on the journey. I unpacked them at once, and was pleased to find 3 plants alive, 1 doubtful and 2 dead. The two plants that are dead were in large baskets, both plants in the pots are alive, and one in a large basket also, and this is the best plant and will I think come on well.

I fixed them up in a small tank as the soil was not ready in the Victoria tank, and it is also being altered. I shall transfer them to the large tank, as soon after it is finished, as they are strong enough. None of the seeds have germinated yet, but they are still good.

I have had the Wardian case brought up here and as many of the plants from your desideratum as we can get into it, will be at once prepared and the case returned to you as soon as the plants are a bit established.

Again thanking you for the trouble you have taken in sending us the *Victoria Regia* and trust it will be a success."

Financial statement for August, 1895.—Read and passed.

Revision of Prize list.—Extra Prize Class.—Resolved that the prizes for Tobacco and Cheroots be discontinued for the present.

Cactus Clump near Parcherry Gate:—After inspection the committee decided to authorise the removal of the cactus plants and levelling of the ground. Specimens of each cactus found surviving will be planted on the waste ground near the nursery.

Rainfall:—Rainfell in 15 days in August, the total for the month was 5·03 inches.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for the month of September, 1895, held on Monday, the 7th October, at 7-30 a. m.

PRESENT :

Hon'ble DR. D. DUNCAN, *in the Chair.*

J. WINTERBOTHAM, ESQ. | E. THURSTON, ESQ.

COLONEL H. W. H. COX, *Honorary Secretary.*

The undermentioned contributions were made to the Garden Library :—

Annual Report of the Government Experimental Farm, Poona, for the year ending 31st March, 1895.

Records of the Geological Survey of India, Vol. XXVIII, part 3, 1895.

Kew Bulletin of Miscellaneous Information, No. 102, 103 for June, and July, 1895.

Journal of the Royal Horticultural Society, Chiswick, for August, 1895.

Indian Forester for August, 1895, No. 8. Vol. XXI.

Tropical Agriculturist Vol. XV. No. 3, for September, 1895.

Catalogue of Plants in the Government Botanic Gardens, Sydney, New South Wales, 1895.

Bulletin of the Botanical Department, Jamaica for July, and August, 1895.

Agricultural Ledger Series—Central Provinces, No. 1, February 1895.

Annual Report of the Botanic Gardens, Grenada, British West Indies, for 1893.

Second Annual Report of the Agricultural Chemist to the Government of India, for the year ending 31st March, 1895.

Vilmorin—Andrieux and Co's wholesale list of vegetable and flower seed for Autumn, 1895.

Plantes vivantes offertes en échange aux Jardins Botaniques par le Museum D'Histoire Naturelle de Paris for 1895.

Annual Report on the Government Cinchona Plantation and Factory in Bengal for the year, 1894-1895.

Report of the Director of the Botanical Survey of India, for the year 1894-1895.

Memoranda of the Madras Department of Land Records and Agriculture.

First report Indigo Crop of 1895; Late sown Gingelly of 1894-1895; early gingelly sowings of 1895-1896; Cotton sowings for 1895-1896.

Experimental station Record, of the U. S. Department of Agriculture, Vol. VI. Nos. 6 & 11 of Vol. VI. and Proceedings of the eighth Annual Convention of the American Agricultural Colleges and Experimental Stations, Washington, 1895.

Revue Agricole et Journal de la Chambre D'Agriculture de L' Ile Maurice, Nos. 4, 5, 7 & 8, 1895.

Bulletin of the Department of Agriculture, Brisbane, Nos. 5, 6 & 7, 1895.

The Agricultural Ledger of 1895:—Agricultural series, No. 4, Manures; Special Forest series No. 15, First Culture in the North West Himalay; Vegetable Product series No. 18, Agave americana and No. 15, Arachis hypogæa.

Proceedings of the Government of Madras, No. 169, dated 19th March, 1895, about Farm Manure.

Report on the Sericultural Experiments, carried on at Alipore by the Silk Committee, since the year 1891-92.

Proceedings and journal of the Agriculture and Horticultural Society of India--January to March, and April—June, 1895.

Bulletin of Miscellaneous information of the Botanic Garden, Grenada for May, 1895.

Memoranda of the Department of Land Records and Agriculture, Bengal:—

Jute crop for season, 1895 and jute crop in Bengal for season 1895.

Memoranda of the Government of India—Department of Revenue and Agriculture:—

Winter Oil seeds crop of 1894-95; Sesamum crop of the season 1895; Indian cotton crop, 1895; Cotton crop in Berar; Sesamum crop in Berar; and Coffee crop in Coorg.

The following contributions were made to the Gardens:—

2 seeds of Grias cauliflora (Anchovy Pear) from the Director, Botanic Gardens, Jamaica.

A packet of seed of Amaryllis hybrid var. from Mr. G. M. Woodrow, Poona.

Twenty-five pounds of Albizzia moluccana seed from the Director Botanic Gardens, Buitenzorg, Java.

Seed of Bentinckia nicobarica (½ lb.) from the Superintendent, Botanic Gardens, Calcutta.

Twelve cuttings of Verbesina grandiflora from Mr. John Cameron, Bangalore.

Three kinds of Tobacco seed from Messrs. Spencer & Co., Madras.

A packet of seed and cuttings of Verbesina grandiflora from Revd. G. Richter, Coorg.

One hundred and twenty Kola nuts and seed of Stevensonia grandifolia and Pritchardia pacifica from the Director, Botanic Gardens, Grenada.

A packet of seed of Coffea bengalensis from the Agri-Horticultural Society of India, Calcutta.

The undermentioned packets of tree and shrub seeds from Mr. W. Nock, Acting Director, Royal Botanic Gardens, Peradeniya, Ceylon :—

Areca triandra
„ concinna
„ triandra var.
Arenga saccharifera
Archontophœnix Cunninghamii
Acrocomia sclerocarpa
Brexia madagascariensis
Cocos sancona
„ plumosa
Caryota Rumphiana
Calyptrocalyx spicatus
Chrysalidocarpus lutescens
Dypsis madagascariensis
Didymosperma distichum
Elæis guineensis
Gomphocarpus fruticosus
Garcinia cambogia
Gymnosporia emarginata
Livistona australis
„ chinensis
„ olivæformis
„ rotundifolia
Licuala elegans
„ spinosa
„ gracilis
Loxococcus rupicola
Martinezia caryotæfolia
Meliosma simplicifolia
Oreodoxa regia
„ oleracea
Oncosperma filamentosa
„ fasciculatum
Pinanga paradoxa
„ patula
Styrax Benzoin
Ptychosperma Mac Arthurii
„ sp.
Phœnicophorium sechellarum
Ravenala madagascariensis
Sabal palmetto
Verschaffeltia splendida
One packet of seed name unknown

Victoria regia plants.—Read the following letter from Mr. W. Nock, Acting Director, Royal Botanic Gardens, Peradeniya, dated 3rd September, 1895 :—

"You will be sorry to learn that all the plant of the *Victoria Regia*, that you were good enogh to send, have died. On the other hand you will be pleased to learn that 11 of the seeds have germinated and are doing well and I hope in a few weeks time they will be large enough to plant out. The only thing that has troubled them yet is a water slug which feeds on the small tender leaves. I am having these carefully hand picked and I trust all will now go well.

I had much pleasure in despatching by post to your address on 22nd ultimo, 36 packets of Palm seeds which I trust have reached you safely and that they will prove acceptable.

I very much regret that, at present, we have but a very few of the plants named in your list of desiderata, but I have instructed my assistant to propagate as soon as possible as many plants of those you ask for and they will be forwarded as soon as they are ready."

Recorded with thanks.

Cynodon Seed to Trinidad.—Read letter from Mr. J. H. Hart, Superintendent, Botanical Department, Trinidad, dated 15th August, 1895 :—

"I have your request for Aristolochia Gigas *var.* Strutevantii, but our seed for the time being is all distributed. We have however booked you for a supply when next available. The Vines are not in flower now but will be shortly. Can you send me any seed of *Cynodon dactylon*, I want to see whether the East Indian differs from ours. I find that many things grown under the same in East and West differ very much and that it often pays to introduce our commoner plants so as to get new Strains, &c.

"The Jerusalem artichoke with us, grows not more than two feet high and produces white tubers. Imported sets are already 6 feet and so on."

Resolved that the grass seed be sent as desired.

Kola Nuts.—A second consignment of 120 Cola acuminata seeds was received from the Director Botanic Gardens, Grenada, British West Indies.

The seeds were distributed to the undermentioned gentlemen and the rest sown in the Gardens :—

T. J. Ferguson, Esq., Calicut	...	10 Seeds.
A. D. J. Achart, Esq., Public Gardens, Pondicherry	...	10 Seeds.
The Hony. Secretary, Public Gardens, Trevandrum	...	10 Seeds.
Hon'ble George Romilly, Meppadi, South Wynaad	...	15 Seeds.
William Wright, Esq., Mercara, South Coorg	...	15 Seeds.
L. E. Kerwan, Esq., Santawerry, Birur	...	15 Seeds.

The Honorary Secretary regrets to announce that owing to his approaching departure from India, he must resign office and begs that arrangements may be made for his relief early in November.

Resolved that the matter be postponed to the next meeting.

Financial Statement for September and July to September, 1895.—Read and passed.

Rainfell in 8 days in September, the total rainfall for the month was 5·07 inches.

D. DUNCAN, *Chairman.*

H. W. H. COX, *Hon : Secretary.*

Financial Statement for July to September, 1895.

RECEIPTS.	Amount.			Amount.			EXPENSES.	Amount.			Amount.		
	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.
Balance with Messrs. Binny & Co., on 31st June, 1895 ..	1,676	2	8				Pay of Establishment from July to Sept. 1895...	1,005	9	7			
Do. in hand receipt account ...	59	0	0				Coolies do...	232	9	0			
Do. do. expense account ...	6	3	6				Seeds (English and country) do...	789	10	5			
							Plants do...	30	4	0			
							Repairs to Sheds and Fern Houses do...	32	9	0			
				1,741	6	2							
By sale of seeds from July to September, 1895...	688	11	6				Pots, manures, &c. do...	42	12	0			
Do. Plants do...	224	8	6				Municipal tax for 1st 1895-96 do...	22	14	0			
Do. Sundries do...	170	14	6				Red Hills water supply January to March, 1895...	77	10	6			
By Subscn. from Members do...	435	0	0				Books and periodicals do...	18	5	0			
Do. Government grant do...	750	0	0				Printing charges do...	90	7	0			
				2,269	2	6	Postage on letters, &c. do...	32	4	6			
							General expenses do...	260	14	4			
											2,635	13	4
							Balance with Messrs. Binny & Co. on 30th Sept. 1895...	1,327	9	6			
							Do. in hand expense acct. do ..	...	2	10			
							Do. do receipt acct. do...	46	15	0			
											1,374	11	4
Total Rupees ...	...	...	...	4,010	8	8	Total Rupees ...	...	...	...	4,010	8	8

Agri-Horticultural Society, Madras, *4th November*, 1895.

H. W. H. COX, *Honorary Secretary.*

ANNUAL EXHIBITION

OF THE

MADRAS AGRI-HORTICULTURAL SOCIETY,

TO BE HELD

On Saturday, the 22nd February, 1896.

LIST OF PRIZES, ETC.

CLASS I.

Flowers in Pots, exclusive of Annuals.

		RS.
I.—Best General Collection of not less than 20 varieties, one pot of each	.. ..	10
II.—Best collection of Roses of not less than 12 varieties	1st Prize..	15
	2nd Prize..	7
III.—Best Verbenas, not less than 12 kinds	..	5
IV.—Best Carnations, Picotees, Pinks and Dianthus, not less than 12 varieties	1st Prize..	5
	2nd Prize..	2
V.—Best collection of Climbers (Perennial), one pot of each, not less than 12 varieties	1st Prize..	10
	2nd Prize..	5
VI.—Best Geraniums and Pelargoniums, not less than 6 varieties	.. .. ..	5
VII.—Best collection of Cannas, not less than 10 varieties	.. .. ..	5
VIII.—Best collection of Begonias in flower, not less than 8 varieties	.. .. ..	5
IX.—Best collection of Perennial Phloxes	..	3
X.—Best Chrysanthemums ..	1st Prize..	5
	2nd Prize..	2

	Rs.
XI.—Best Violets	3
XII.—Best Heliotropes	3
XIII.—Best collection of Hibiscus	5

CLASS II.

Annuals grown in Pots.

I.—Best Collection of not less than 18 varieties ..	10
II.—Best Double Balsams, not less than 10 pots 1st Prize..	5
2nd Prize..	2
III.—Best Portulaccas, not less than 6 pots ..	5
IV.—Best Asters, not less than 12 pots	5
V.—Best Phloxes, not less than 12 pots 1st Prize..	5
2nd Prize..	2
VI.—Best Climbers, not less than 8 varieties ..	5
VII.—Best Petunias, not less than 6 pots 1st Prize..	5
2nd Prize...	2
VIII.—Best Double Zinnias, not less than 6 colors ..	5

CLASS III.

Cut Flowers.

I.—Best collection of choice Cut Flowers 1st Prize..	5
2nd Prize..	3
II.—Best Hollyhocks, not less than 12 spikes ..	3
III.—Best Dahlias, do. 6 varieties ..	3
IV.—Best collection of Cut Roses	3

CLASS IV.

Ferns, &c.

I.—Best collection of Ferns, a silver medal or 1st Prize..	20
2nd Prize..	10
II.—Best grown Ferns, not less than 5 pots ..	5
III.—Best Single Specimen Fern	3
IV.—Best Bulbous and Tuberous Plants, not less than 6 varieties in flower	5
V.—Best collection of fine Foliage Plants, not less than 20 varieties, and not more than 2 pots of each 1st Prize..	15
2nd Prize..	7

RS.

VI.—Best collection of Caladiums, only one plant of each variety to be exhibited 7

VII.—Best collection of Alocasias, only 1 plant of each variety 5

VIII.—Best collection of Palms, Cycads, and other Palmaceous plants, not less than 10 varieties and not more than two specimens of each variety .. 10

IX.—Best collection of Crotons, not less than 15 varieties and not more than one specimen of each variety 1st Prize.. 10

2nd Prize.. 5

X.—Best collection of Dracænas, not less than 8 varieties and not more than two specimens of each variety .. .. .. 1st Prize.. 10

2nd Prize.. 5

XI.—Best Single Shrub grown in Madras in a tub or pot 5

XII.—Best Aralias and Panax, not more than two specimens of each variety 5

XIII.—Best collection of Lycopodium and Selaginella .. 5

XIV.—Best collection of Anthuriums, not more than two specimens of each variety 5

XV.—Best collection of Coleus, not more than two specimens of each variety 5

CLASS V.

Rare Plants.

I.—Best collection of any plants not previously exhibited, grown in the Madras Presidency or Mysore. 15

CLASS VI.

Vegetables grown in Madras by Amateurs.

I.—Best Celery, not less than 5 stalks 3

II.—Best Beetroot, not less than 6 roots 2

III.—Best Turnips, not less than 6 roots 2

IV.—Best Carrots, not less than 6 roots 2

V.—Best Onions, not less than 12 bulbs 2

VI.—Best Cucumbers, not less than 6 2

VII.—Best Vegetable Marrows, not less than 6 .. 2

VIII.—Best Yams, not less than 6 2

	RS.
IX.—Best Tomatoes, not less than 12	2
X.—Best Asparagus	2
XI.—Best collection of Salad Plants	4
XII.—Best Peas	2
XIII.—Best Brussels Sprouts	2
XIV.—Best Arrowroot	2
XV.—Best Tapioca..	2
XVI.—Best Lettuces	2
XVII.—Best Knol-khol, 6 specimens	2
XVIII.—Best Jerusalem Artichokes	2
XIX.—Best Chillies	2
XX.—Best collection of Indian Vegetables ..	3
XXI.—Best collection of English Vegetables ..	3
XXII.—Best Radishes	2
XXIII.—Best Chillies and Capsicums grown in pots ..	2
XXIV.—Best Sweet Herbs do.	3

CLASS VII.

Open only to Market Gardeners.

Vegetables (grown anywhere).

I.—Celery, 6 stalks, ..	1st Prize, Rs.	4 ;	2nd Prize	2
II.—Knol-khol, 6 specimens	,,	,,	3	,,	2
III.—Beetroot, 6 roots ..	,,	,,	3	,,	2
IV.—Carrots, 6 roots ..	,,	,,	3	,,	2
V.—Turnips, 6 roots ..	,,	,,	3	,,	2
VI.—Onions, 24 bulbs ..	,,	,,	3	,,	2
VII.—Cabbages, 6 heads ..	,,	,,	4	,,	2
VIII.—Vegetable Marrows ..	,,	,,	3	,,	2
IX.—Cucumbers ..	,,	,,	3	,,	2
X.—French Beans ..	,,	,,	2	,,	1
XI.—Kidney Beans ..	,,	,,	2	,,	1
XII.—Tomatoes ..	,,	,,	3	,,	2
XIII.—Chillies ..	,,	,,	3	,,	2
XIV.—Brinjals ..	,,	,,	3	,,	2
XV.—Bandikai ..	,,	,,	3	,,	2
XVI.—Potatoes, (*a*) large ..		..	Prize		3
Do. (*b*) small ..		..	,,		3

		RS.
XVII.—Peas ..	.. 1st Prize, Rs. 3; 2nd Prize,	2
XVIII.—Best collection of Salad Plants	.. Prize	2
XIX.—Lettuces	.. 1st Prize, „ 2; 2nd „	1
XX.—Cauliflowers	.. „ „ 3 „	2

CLASS VIII.

Open to All.

Fruits.

	RS.
I.—Best Strawberries	10
II.—Best Raspberries	3
III.—Best Peaches	9
IV.—Best Apples	8
V.—Best Pears	5
VI.—Best Sweet Oranges, 24 specimens	3
VII.—Best Pumplemoses, 6 specimens	2
VIII.—Best Figs, 12 specimens	5
IX.—Best Grapes, 3 bunches	5
X.—Best Sapodillas, 24 specimens	3
XI.—Best Melons, 6 specimens	3
XII.—Best Plantains	3
XIII.—Best Lemons, 12 specimens	5
XIV.—Best Limes	3
XV.—Best Guavas	3
XVI.—Best Citrons	3
XVII.—Best collection of Dried Fruits	5

CLASS IX.

Open only to Soldiers, Non-Commissioned and Warrant Officers, the Police and Jail Department in Madras.

Flowers and Vegetables.

I.—Best collection of Flowers in pots	1st Prize ..	10
	2nd „ ..	5
II.—Best collection of Vegetables	1st „ ..	10
	2nd „ ..	5

EXTRA PRIZE LIST.

The Government having placed at the disposal of the Society a sum of 500 rupees, they have much pleasure in offering the following prizes, which will be open to the produce of the Madras Presidency, Hyderabad, Mysore, Coorg, Travancore, and Cochin :—

* I.—A gold medal for the best sample, and a silver medal for the second best sample of Tea of good quality, that is largely sold by retail within the prescribed area, and is so moderately priced as to be suited for general consumption.

N.B.—The samples exhibited shall be not less than 30 lbs. in weight, and competitors must sign and forward a declaration that they are the growers and preparers of the same, and that they have been grown since the last exhibition, and form part of a "break" of at least 1,000 lbs. The Exhibits will be sent for valuation to a Tea Broker in Calcutta, and the prize awarded by the Judges in accordance with the Broker's Report.

* II.—Best sample of silk of not less than 1 lb. in weight .. .. .. Rs. 15

* III.—Best sample of Tussa or other wild silk of not less than 1 lb. in weight .. .. Rs. 15

N.B.—Exhibits of Silk will be sent for valuation by an expert at Calcutta and the prizes awarded in accordance with his report.

IV.—A silver medal for the best General Collection of Produce usually exported from Madras. Each article to have its name and use given.

V.—A Prize of 10 rupees for the best collection of Green Forage.

VI.—Best collection of Forest Products, *e.g.*, gums, oleo-resins, wax, &c. .. .. Rs. 10

VII.—Best collection of Fibre Plants and cleaned Fibres .. .. .. Rs. 15

VIII.—Best collection of Economic Plants such as timber and other useful trees .. Rs. 15

* Samples of Silk and Tea must reach the Garden by 31st December, 1895.

IX.—Best collection of Medicinal Plants .. Rs. 10

X.—Best collection of Dyes, Tanning Materials and Mordants .. .. Rs. 10

N.B.—In no case will a Prize be awarded more than once for the same Exhibit.

Conditions of Competition.

1. All articles for competition, except those specified in the Extra Prize List, Cut Flowers, Fruits and Vegetables, must arrive at the Gardens before 2 P.M., on the day previous to the Exhibition, accompanied by a sealed letter addressed to the Honorary Secretary containing a list of the articles sent, with one or other of the following certificates, in the case of Plants or Flowers: "I hereby certify that the *Plants* or *Flowers* (as the case may be) sent by me for competition, have been under my care for the last two months, and have been grown by me in Madras." And in the case of fruit or vegetables: "I hereby certify that the *Fruit* or *Vegetables* sent by me for competition are my produce and have been grown by me in Madras." Unless otherwise specified, all articles sent for competition must be *bonâ fide* the produce of, or have been raised by the exhibitor, and must have been grown in Madras. The Judges may withhold any prize until proof of these conditions be produced.

2. It shall be competent for the Judges to reduce the amount of the prizes if, in their opinion, the articles exhibited do not merit the full sums and they may disqualify any exhibits which in their opinion contain ill-grown or immature plants.

3. No prize shall be awarded unless there are at least two competitors for it; except in cases of rare excellence, when the Judges may specially award a prize.

4. When the Prize List specifies the exact number of plants, &c., to be exhibited, no exhibitor shall be allowed to exhibit more.

5. Competitors for Prizes must sort their own articles, and place them in the appointed places.

6. No articles can compete for more than one prize.

7. All articles must be in full perfection (flowers in bloom).

8. Parties forwarding articles for exhibition, and not for competition, will be kind enough to send information to that effect to the Honorary Secretary.

9. No articles sent for competition are to be taken away until 6 P.M., on the day of Show, and they are then to be removed in such order as may be directed by the Honorary Secretary; and any gardener or other person found offering fruits, vegetables, or flowers for sale within the inner barrier, shall be summarily ejected.

Regulations for Visitors.

1. The Exhibition will be open for the 'private view' from 7 A.M. till mid-day, and admission between these hours will only be granted to holders of Committee tickets.

2. Members of the Society will receive Committee tickets *gratis* for their families and guests staying at their houses.

3. Persons not Members of the Society can also obtain admission to the private view by purchasing tickets, which may be obtained at the Gardens the week previous to the Show, or at the gate on the morning of the Exhibition. Single ticket, 1 rupee; family ticket, 3 rupees.

4. It is requested that Members will not solicit tickets for residents in Madras, who can secure to themselves the privilege of admission under the preceding Rule, and to whom the Gardens are open free on all ordinary occasions.

5. After the 'private view' the Exhibition will be open to the general public from mid-day till 4 P.M., at the charge of 4 annas, and after that hour to 6 P.M., at 2 annas. Volunteers and Soldiers in uniform, and School Children, in charge of their Teachers, under 14, *free*.

H. W. H. COX, COLONEL,
Honorary Secretary.

13*th September*, 1895.

VEST & CO., PRINTERS, MADRAS.

Proceedings of the Agri-Horticultural Society of Madras, for October, 1895, held on Monday, the 4th November, 1895.

PRESENT:

COLONEL G. M. J. MOORE, C.I.E., *Chairman.*

HON'BLE MR. A. T. ARUNDEL, | J. L. WALKER, ESQ.,
„ DR. D. DUNCAN, | H. M. WINTERBOTHAM, ESQ.,

COLONEL H. W. H. COX, *Honorary Secretary.*

The following contributions were made to the Garden Library during the month:—

The Tropical Agriculturist for October, 1895.

Kew Bulletin of Miscellaneous information for September, 1895.

Report on the Progress and Condition of the Government Botanical Gardens, Saharanpur and Mussooree, for the year ending 31st March, 1895.

Select Extra-Tropical Plants by Baron Ferd. Von Mueller, Government Botanist, Melbourne, 9th Edition, 1895.

Indian Forester for September, 1895.

Hand-Books of the Flora of Ceylon, by Dr. H. Trimen, 3rd part with plates 51 to 75 1895.

Revue agricole et Journal de la chambre D'Agriculture de L'Ile Maurice for September, 1895.

Resolution on the management of the District Gardens in the Central Provinces for the year 1894-95, Nagpur.

Proceedings of the Madras Government No. 737, 25th September, 1895, (Financial) passing orders on the Budget Estimate of the Agri-Horticultural Society of Madras, for 1896-97.

Experiment Station Record No. 1 of Vol. VII, 1895, and Bulletin No. 22 of the U. S. Department of Agriculture, Washington, 1895.

Bulletin van het Koloniaal Museum te Haarlem-Juli, 1895.

Proceedings of the Tenasserim Agri-Horticultural Society for August, 1895.

Vilmorin Andrieux and Co.'s wholesale Catalogue of Gladiolus roots for 1895-96.

Choice hardy trees, shrubs, bulbs and plants for fall planting for 1895, from Fred'k W. Kelsey, New-York.

Report on Experimental cultivation in the Southern Shan States for the year 1894-95.

Report on the "Savannahs" of Guiana by G. S. Jenman, Government Botanists, British Guiana.

The following contributions were made to the gardens :—

Seed of Sapindus saponaria and Juniperus bermudiana from the Director, Botanic Gardens, Jamaica.

Three hundred and fifty pots from Mr. W. Hamilton Holmes, Madras Club.

Budget Estimate—*Read* the following paper from the Secretary, Agri-Horticultural Society, Madras, dated 11th September, 1895.

Abstract.—Submitting Budget Estimate for 1896-97.

DETAILED ACCOUNT No. 26H—SCIENTIFIC AND OTHER MINOR DEPARTMENTS.

Botanical and other Public Gardens.

	Budget Estimate, 1896-97.	Revised Estimate, 1895-96.	Budget Estimate, 1895-96.	Accounts, 1894-95.
Other Public Gardens.	RS.	RS.	RS.	RS.
Agri-Horticultural Gardens, Madras	4,000	4,000	4,000	4,000
RECEIPTS.				
Government grant	3,500	3,500	3,500	3,000
„ special grant for prizes	500	500	500	500
Subscription from members ...	1,500	1,700	1,750	1,804
Sale of admission tickets at Flower Show	850	870	800	929
Sale of seeds	1,750	1,800	2,000	1,802
„ plants	1,200	1,250	1,280	1,884
„ sundries	950	980	970	870
Total ...	10,250	10,600	10,800	10,789
EXPENSES.				
Prizes and other expenses connected with Flower Show ...	1,410	1,395	1,400	1,169
Advertisement & printing charges.	200	250	240	174
Stationery and postage	113	112	115	98
Carts and cooly hire	480	490	500	698
Fixed establishment	3,995	3,990	3,984	3,968
Cooly labour	797	795	800	790
Seeds purchased	1,650	1,700	1,650	1,808
Plants purchased	540	500	600	535
Pots and potting materials ...	290	278	220	288
Books and periodicals	195	180	200	164
General repairs and garden requisites	230	210	200	223
Quit-rent and municipal tax ...	50	50	49	50
Red Hills water-supply	350	300	340	236
Repairs and new buildings ...	70	70	80	54
Petty expenses	250	250	245	135
Donation	...	...	...	10
Garden seats purchased	...	...	...	166
Rain gauge and stand	...	...	...	52
Steel punches for labels	...	...	...	47
Total ...	10,620	10,570	10,623	10,665

ORDER—dated 25th September, 1895, No. 737, Financial.

The usual grant of Rs. 4,000 will be entered in the Budget for 1896-97. The special allotment for prizes (Rs. 500) will not, however, be disbursed in the event of the Annual Flower Show not being held in 1897.

2. It is observed that subscriptions from members and sale-proceeds of seeds and plants are expected to decline, while the expenditure on fixed establishments and cooly-labour is steadily increasing.

(True Extract.)

J. F. PRICE,

Chief Secretary.

The undermentioned is a list of the trees and shrubs planted out during the month :—

Erythrina vespertilionis	Oreodoxa regia
Ptychosperma MacArthurii	Hibiscus magnificus
Nephrolepis exaltata	Do. grandiflorus
Archontophœnix Cunninghamii	Sterculia diversifolia
Licuala peltata	Melia Candollii
Nandina domestica	Hibiscus zebrinus
Cedrela Toona	Do. rubro-plenus
Mimusops globosa	Bixa orellana

Government Grant.—Read Proceedings of the Madras Government, Financial Department, No. 759, dated 2nd October, 1895, sanctioning Rs. 500 from the budget for 1895-96 for Extra Prizes to be awarded at the Annual Flower Show, 1896.

Honorary Secretaryship.—Read letter from Dr. A. G. Bourne expressing his willingness to accept the Honorary Secretaryship.

Resolved that Dr. Bourne be elected Member of the Committee, and appointed Honorary Secretary.

In accepting Col. Cox's resignation the Committee wish to place on record their appreciation of the invaluable services rendered by him and the great loss the Society will suffer from the severance of his connection with it.

Resolved that Colonel Cox be elected an Extraordinary Member in recognition of the important services rendered by him to the Society.

Araujia albens.—Read the following letter from Mr. J. Medley-Wood, dated Natal Botanic Gardens, Durban, 16th September, 1895:—

"I have received your letter of July 26th, and also the parcel of seeds for which I thank you, there are amongst them eight or ten species which we have not got. I am sorry that just now we have no seed of *Araujia albens* in stock, but we have young plants, and if I can get a good opportunity I will send a case of plants to you, and will include this among them, the insect catching propensities of this plant are most curious. I am assured that this plant is indigenous in Mashonaland, and in fact the plants we have are descended from a plant said to have been originally brought from there, where my informant tells me that it is so plentiful that the natives use the coma of the seeds for making pillows &c., &c., but the matter requires further investigation."

Recorded with thanks.

Rainfall.—During the month 11·21 inches of rain fell in 21 days.

Financial statement for October. Read and passed.

G. M. J. MOORE,

Chairman.

H. W. H. COX,

Honorary Secretary.

Proceedings of the Agri-Horticultural Society of Madras, for November, 1895, held on Monday, the 2nd December, 1895, at 7-30 a.m.

PRESENT:

COLONEL G. M. J. MOORE, C.I.E., (*in the chair.*)

MR. J. L. WALKER, | HON'BLE DR. D. DUNCAN, M.A.,

DR. A. G BOURNE, *(Honorary Secretary.)*

The following contributions were made to the Garden Library:—

Manual of South Canara District in 2 Vols., 1895.

Agricultural Ledger:—Nos. 5 and 6, Dairy Farming and Dairy Produce, No. 9, Al Dye (Morinda).

Bulletin of the Department of Agriculture, Brisbane Botany, Nos. 11 and 12, 1895.

Seventh Annual Report of the Cossipore Practical Institution of Agriculture, &c., for the year ending 31st December, 1894.

Bulletin of the Trinidad Royal Botanic Gardens, for October, 1895, Vol. II, No. 4.

The Indian Forester, for October, 1895.

Transactions of the Queensland Acclimatisation Society from July to September, 1895, Vol. 1, part XI.

Bulletin of the University of California Agricultural experiment station, for August, 1895.

Annual Report of the Department of Land Records and Agriculture, Assam, for the year 1894-95.

Report on the Horticultural Gardens, Lucknow, for the year ending 31st March, 1895.

Memoirs of the Geological Survey of India, Palæntologia Indica, Ser. XV, Vol. 2, part II and Ser. XIII Vol. 2.

Proceedings of the Madras Government, Nos. 662, 662A, dated 4th October, 1895, reviewing the report of the Department of Land Records and Agriculture; Nos. 673, 673A, dated 7th October, 1895, about Quinine sale, No. 664, dated 4th October, 1895, and 16th July, 1895, No. 451, about recording and publication of the results of experiments on Farms.

Damman & Co.'s catalogue of vegetable and flower seeds for 1895-96.

Kew Bulletin of Miscellaneous information for October, 1895.

Tropical Agriculturist for November, 1895.

Bulletin of the Botanical Department, Jamaica, for September, 1895.

Experiment Station Record, Vol. VII part 2 and Bulletin No. 26 of the U. S. Department of Agriculture, Washington, 1895.

The following contributions were made to the Gardens :—

Egyptian cotton seed, "Abassi" sample Nos. 1 and 2 from Maurice Wolf, Esq., Mansourah, Egypt.

One bag of Nepaul Pepper from Colonel W.H. Wylie, Resident, Nepaul.

Seed of Tuberous rooted Siamese vine from Mr. Hamilton Holmes, Madras Club.

Seed of Ptychosperma Alexandrii from the Botanic Gardens, Rockhampton.

Three plants of Arum sp. and a packet of Ipomæa sp. seed from Mr. A. W. D. Oakes, Madras.

A packet of seed of Sterculia alternifolia from the Botanic Gardens, Graaf Reinet.

Thirty Cardamum roots from Messrs Spencer & Co., Madras.

Twenty-three packets of Landreth & Co.'s., vegetable seeds from the Cossipore, Botanic Gardens, Calcutta.

Plants and seeds of Ceara Rubber from Mr. E. Barclay, Adyar.

Plants to Nagpur.—By request of Mr. J. H. Stephen, Superintendent, Government Horticultural Gardens, Nagpur the undermentioned plants were forwarded on the 14th Nov., 1895, in exchange :—

Heliconia rubra striata
Do. aurea striata
Alocasia Lowii
Anthurium Scherzerianum
Begonia fuchioides
Hibiscus magnificus
Do. syriacus *var.*
Impatiens sp.
Adiantum cuneatum
Asplenium bulbiferum
Gymnogramma sp.
Saccolobium sp.
Eulophia virens
Vanda Roxburghii
Dendrobium sp.
Cymbidium alœfolium
Pholidota imbricata
Bletia antirrhiniflora
Pogonia sp.

The undermentioned is a list of the trees and shrubs planted out in the Gardens during the month :—

Dendrocalamus Oliveriana.
Ptychosperma Mac Arthurii.
Dombeya sp. from Bangalore.
Bixa orellana.
Areca glandiformis.
Corypha sobolifera.
Citrus japonica.
Garcinia Cowa.
Mammea americana.

Coffee Shade for Zanzibar.—Read letter from Dr. A. H. Spurrier, dated 26th October, 1895, asking for one ounce of Albizzia moluccana seed for trial as a Coffee Shade tree at Zanzibar.

Eight ounces of the seed was sent on the 9th November, 1895, free.

Recorded.

Square Bamboo.—Read letter from Mr. W. L. Edmiston of Kotagiri, dated 12th Inst., asking for Square Bamboo plants. On reference to our Library we find that a drawing of the Square Bamboo is given in the Gardeners' Chronicle of the 29th January, 1876.

A letter has been addressed to Mr. Louis Boehmer, Nurseryman and Florist, Yokohama, Japan, asking him if he can assist us in getting plants or seeds.

Recorded.

Rice for Unirrigated Lands.—Read letter from the Superintendent, School of Agriculture, Colombo, asking for a small quantity of the varieties of paddy suitable for dry lands.

A small quantity of each variety of Paddy called white "Valan" and red "Valan" recommended by Colonel H. W. H. Cox, late Honorary Secretary of the Society, was procured from Kalahasti and despatched on the 25th instant to Colombo.

Recorded.

Palm Beetle.—Read the following extract from letter from Mr. Edgar Thurston, dated 30th November, 1895 :—

"A few months ago I received from the Laccadives specimens of a Rhinoceros beettle (Oryctes rhinoceros) which was said to be causing great damage to the Cocoanut trees of the Amindivi group of Islands by cutting large holes through the young leaf shoot. Herewith I send a specimen *in situ* from the compound of the Medical College and a further specimen to show what this insect nest is like. I hope he is not going to become a plague in Madras. If however he is, his importance is obvious."

Recorded with thanks.

Rain Tree Measure.—Read the following letter from Hon'ble Mr. A. T. Arundel, dated, Searles Gardens, Adyar, 28th November, 1895 :—

"For the last two years the Society's Proceedings have recorded in November or December the growth of two flourishing rain trees (Pithecolobium Saman) planted in 1892 in front of my house. I now find the girth at 3 feet from the ground to be 1 ft., $10\frac{1}{2}$ in. and 2 ft., 1 in. The tree with the larger girth was the smaller last year. It may be of interest to enter the girth for each year for comparison. Both trees are now large and shady.

Planted in Oct. 1892.	Measured on 9th Nov. '93.	Measured 9th Dec. '94.	Measured on 28th Nov. '95
	$6\frac{3}{4}$"	17"	2' 1"

Recorded with thanks.

Rainfall.—During the month 9·60 inches of rain fell in 13 days.

Financial statement for November—Read and passed.

Election of two members of the Committee in place of Colonel Fane Sewell, and Mr. Hamilton Holmes resigned.

Resolved that Mr. E. B. Powell and Surg-Major-General Sibthorpe be invited to accept the vacant seats.

G. M. J. MOORE,

Chairman.

A. G. BOURNE,

Hony. Secretary.

Proceedings of the Agri-Horticultural Society Madras, for the month of December, 1895, held on Monday, the 3rd February, 1896.

PRESENT :

COLONEL G. M. J. MOORE, (*in the Chair*).

E. B. POWELL, ESQ. | J. L. WALKER, ESQ.
H. M. WINTERBOTHAM, ESQ. | HON. MR. J. STURROCK.

SURG.-MAJ.-GENL. SIBTHORPE.

DR. A. G. BOURNE, (*Honorary Secretary*).

The following contributions were made to the Library :—

Report on the Cawnpore Experimental Farm for the Kharif and Rabi seasons, 1894-95.

The Tropical Agriculturist for December, 1895, No. 6 of Vol. XV.

Kew Bulletin of Miscellaneous information Appendix II and III, 1895.

Records of the Geological Survey of India, Vol. XXVIII, part 4, of 1895.

Records of the Botanical Survey of India, Vol. I, part 5 and 6, 1895.

Manual of North Arcot District, Revised Edition, 2 Vols., 1895.

Proceedings and Journal of the Agricultural and Horticultural Society of India, July to September, 1895.

Experiment Station Record of the U. S. Department of Agriculture, Washington, No. 3 of Vol. VII.

Annual Agricultural Report of the Department of Land Records and Agriculture, Bengal for the year ending 31st March, 1895.

Report on the Department of Land Records and Agriculture, Burma for the year, 1894-95.

Annual Report on the Gardens of His Highness the Maharana of Oodeypore for the year, 1894-95.

Journal of the Royal Horticultural Society, Chiswick, Vol. XIX, part 2.

Bulletin of the Botanical Department, Jamaica, for October, 1895, Vol. II, part 10.

Catalogue of plants and seeds on sale at the Horticultural Gardens, Nagpur, 1895.

The Agricultural Ledger—1894, No. 5, Lucerne; No. 12, Horses, Asses, and Mules; 1895, No. 7 and 17 Oxen; No. 10 and 12 Oxen and Buffaloes; No. 13, sugar and sugar cane; No. 16 manure and manuring.

Annual Report of the Bengal Veterinary Institution for the year, 1894-95.

"Revue Agricole" et Journal de la Chambre D'Agriculture de L'Ile Maurice for October and November, 1895.

The following memoranda on various crops, &c., were also received:—

From the Department of Land Records and Agriculture, Burma:—

District Officer's reports on the rice-crop prospects of September, October and November, for 1895-96.

From the Department of Land Records and Agriculture, Punjab:—

Second forecast of the cotton crop for October and a final report for December, 1895, Second forecast of the Indigo crop for October and a final report for December 1895, and Second forecast of the Sesamum (Til) crop for December, 1895.

From the Department of Land Records and Agriculture, Central Provinces:—

Final report on the Cotton crop for December, final report on the outturn of the Til (Sesamum) crop for December, first forecast of the Linseed crop for December, first forecast of the Wheat crop for December, and second report on the Prospects of the Til crop for October, 1895.

From the Department of Land Records and Agriculture, Bombay:—

Final memorandum on the early Cotton crop of the Deccan and Second memorandum on the late cotton crop of Gujarat, Karnatak and Sind for December, preliminary memorandum of the wheat crop of December, 1895, and final memorandum on the Sesamum crop of January 1895 for the season 1895-96.

From the Department of Land Records and Agriculture, N. W. Provinces and Oudh :—

Final forecast of the Cotton crop, Til crop (sesamum or gingelly) for 1895, First forecast of the Rapeseed and Linseed crops and First forecast of the Wheat crop for 1895-96.

From the Statistical Bureau Government of India :—

Final general memorandum on the sesamum (til or Gingili) of January 1896; second general memorandum on the Rice crop in Bengal, Lower Burma. and Madras, First general memorandum on on the Winter Oil seeds crop; First general memorandum on the Wheat crop; First general memorandum on the Winter Oil seeds crop; Third general memorandum on the Indian Cotton crop of December, 1895, for the season 1895-96; sesamum crop for January, 1896; Linseed crop, Cotton crop and Wheat crop in Berar for December, 1895 ; and First report on the mustard crop in Assam.

From the Government of India Department of Revenue and Agricultural, Bengal :—

Second general memorandum on the sesamum (Til) crop of November, 1895 ; Cotton crop in Berar of October, 1895 ; First general memorandum on the rice crop in Bengal, Lower Burma and Madras for October for the season 1895-99 ; Second general memorandum of the Indian crop of October, 1896.

From the Department of Land Records and Agriculture, Madras :—

Cotton second sowings report for 1895; First forecast of outturn of the Paddy crop; First Forecast of outturn of the Cotton crop; Forecast of outturn of the Indigo crop of 1895-96 ; Forecast of outturn of the early gingelly crop; Paddy sowings Report; and Cotton second sowings Report for the year, 1895.

From the Department of Land Records and Agriculture, Bengal :—

First forecast of the Winter Rice crop for September ; Final Report on the Winter Rice crop for 1895 ; First forecast of Bhadoi crop of September ; and a final report for 1895 ; and Note on the Early Cotton crop in Bengal for 1895.

Proceedings of the Madras Government Nos. 699 and 699 A dated 23rd October, 1895, on Agricultural reduction in India.

Index Seminum ; Horti Botanici, Namnetum Nantes, France, 1895.

Extra Bulletin of the Koloniaal museum 1895—plates XI to XX.

The following contributions were made to the Gardens :—

Twenty-two ferns of sorts from Mrs. Munro, Peermaad.

Committee Member.—Read letter from Mr. E. B. Powell, dated, Teynampett, 5th December 1895 stating that he is willing to join the Committee of the Society.

Recorded

Silky Oak Seed.—Read letter from the Director, Botanic Gardens, Java, dated Buitenzorg, 21st November, 1895, asking for a pound or two of the seed of Grevillea robusta.

Two pounds of the seed has been procured and is being tested before despatch.

Tree Measurements.—Comparison of the measurements taken by the Superintendent in January, 1884 and 1896.

Girth at 5 feet.	Jan. 1884. Feet.		Jan. 1896. Inches.	
Ailantus excelsa	5	$9\frac{5}{8}$	9	$7\frac{1}{2}$
Adenanthera pavonina	4	$11\frac{1}{2}$	5	$11\frac{1}{2}$
Poinciana regia	2	$11\frac{7}{8}$	4	$10\frac{1}{2}$
Pterospermum suaveolens...	4	$4\frac{1}{2}$	5	$7\frac{3}{4}$
Chloroxylon Swietenia	4	9	5	$6\frac{3}{4}$
Sterculia urens	2	$8\frac{3}{4}$	3	$1\frac{1}{2}$
Sclerocarya caffra	6	$3\frac{3}{4}$	7	$11\frac{1}{4}$
Casuarina muricata	3	$6\frac{1}{3}$	5	$1\frac{1}{4}$
Berrya ammonilla	1	11	2	10
Stephegyne parvifolia	4	$9\frac{7}{8}$	6	$0\frac{1}{2}$
Terminalia arjuna	5	7	6	$5\frac{1}{2}$
Guatteria longifolia	2	8	3	$3\frac{1}{2}$
Tectona grandis	4	8	5	$6\frac{1}{4}$
Swietenia Mahogani	7	$10\frac{3}{4}$	8	$9\frac{3}{4}$
Adansonia digitata	19	$2\frac{3}{4}$	20	$1\frac{1}{4}$

	Jan. 1884.		Jan. 1896.	
	Feet.		Inches.	
Girth at 3 feet.				
Kigelia pinnata	9	1	10	$7\frac{3}{4}$
Girth at 1 foot.				
Manihot Glaziovii	1	$1\frac{1}{2}$	2	5

Rainfall.—During the month 5·26 inches of rain fell in 7 days.

Financial statement for December and October to December 1895. Read and passed.

G. M. J. MOORE,

Chairman.

A. G. BOURNE,

Honorary Secretary.

Financial Statement for October to December, 1895.

RECEIPTS.	Amount.	Amount.	EXPENSES.	Amount.	Amount.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Balance with Messrs. Binny & Co., on 30th September 1895...	1,327 9 6		Pay of Establishment from Oct. to December 1895...	1,005 4 5	
In hand for transmission to the Bank	46 15 0		Coolies ...	215 13 6	
In hand, petty cash	0 2 10		Plants purchased ...	79 13 6	
		1,374 11 4	Seeds ,, ...	69 1 9	
By sale of seeds from October to December, 1895...	570 10 6		Pots, manure &c. ...	80 4 0	
Do. plants ...	277 10 0		Red Hills water supply ...	93 8 6	
Do. sundries ...	540 15 0		Repairs to conservatories and erecting a new porch to Superintendent's house	71 3 0	
By loan of plants ...	52 14 0		Printing and Advertising ...	44 0 0	
By subscription from members...	392 0 0		Quit-rent and Municipal tax ...	27 8 6	
By Government monthly grant...	750 0 0		Other expenses ...	467 3 9	
Do. extra grant ...	500 0 0				2,153 12 11
		3,084 1 6	Balance with Messrs. Binny & Co. on 31st December 1895...	2,128 8 6	
			In hand for transmission to the Bank	160 5 0	
			In hand, petty cash ...	16 2 5	
					2,304 15 11
Total Rupees...	... ...	4,458 12 10	Total Rupees...	... ...	4,458 12 10

A. G. BOURNE,
Honorary Secretary.

Proceedings of the Annual General Meeting of the Agri-Horticultural Society of Madras, held on Saturday, the 25th March, 1893.

PRESENT:

Colonel G. J. M. MOORE,
Rao Bahadoor A. THANAKOTI MOODELIAR.
MAHOMED SHERIF KHAN BAHDR.
W. KEESS, Esq.
D. A. J. CROMBIE, Esq.
J. L. WALKER, Esq.
Dr. A. G. BOURNE.
Colonel H. W. H. COX.

It was proposed by MR. CROMBIE, seconded by DR. BOURNE, and carried unanimously that COL. MOORE, do take the chair.

The Honorary Secretary, at the request of the Chairman read the following:—

The Season of 1892, was unfortunately a continuance, more or less, of the drought of the preceding two years, only 42 inches being registered at the Madras observatory. The season however commenced favourably and gave us 22 inches, and enabled us to finish the planting out of many Palms which were not before represented by living specimens in the garden grounds; many other kinds of trees, shrubs, and more lowly perennials were planted, where space existed, or where it was found desirable to throw more colour into the landscape, some very choice and showy varieties of Hibiscus lending themselves admirably to the purpose.

Water Supply.—Owing to the failure of the well in the New Tope, our Victoria and Nelumbium tanks, had to be filled by Red Hills water accounting for the larger quantity of water consumed in October, November, and December than in the corresponding period of 1891.

January	175,400	July	307,000
February	189,400	August	182,800
March	169,100	September	245,600
April	127,100	October	167,200
May	377,900	November	259,200
June	314,700	December	303,900

showing a total of 2,819,300 gallons at a cost of Rs. 313—4—2. In 1891 we used 3,029,700 gallons at a cost of Rs. 336-10-3.

Library.—The following books and periodicals, have been added to the Library during 1892 :—

I.—**Supplied Gratuitously.**

Bulletin of the Botanical Dapartment, Jamaica.
Hooker's Flora of British India, Part XVIII.
Kew Bulletin of Miscellaneous Information.
Records of the Geological Survey of India.
Iconography of Australian Salsolaceous plants, by Baron Ferd Von Mueller, K.C.M.G., &c.
Indian Forester.
Journal of the Royal Horticultural Society, Chiswick.
Tropical Agriculturist.
Journal of the Agri-Horticultural Society of India.
Grenada Bulletin of Miscellaneous Information.
Proceedings of the Royal Colonial Institute.
Bulletin of the Brisbane Botanical Department.
Hand-book on Ipecacuanha, by Dr. Thurston.
Malabar Manual (Vol. III), by W. Logan.
Bulletin of the Madras Agricultural Department.
Proceedings of the Madras Government on Coffee leaf disease ; Kew.
Bulletin; Agricultural Schools and Farms; Regimental Garden Institutions; Phosphatic nodules discovered by Dr. Warth; Madras Government Museum Report; Nilgiri Botanical Garden; Government Cinchona Plantation, Nilgiris; and Settlement of Land Revenue for 1891—92.
Memoirs of the Geological Survey of India.
Revue Agricole, Agriculture—Horticulture—Acclimation, &c.
L'Illustration Horticole.

II.—**Acquired by purchase.**

Gardeners' Chronicle for 1892.
Botanical Magazine for 1892.
Hooker's Icones Plantarum.
Flückiger and Hanbury Pharmacographia, 1874.

Proceedings of Government.—The Society had the advantages of receiving, during the year, from the Government of Madras and India, official reports, on various matters connected with Agriculture &c., which were acknowledged or published in the Proceedings.

Gardeners.—During the year several gardeners were engaged for local gardens and also for gardens at Madura, Trevandrum and Trichinopoly.

Incorporation of the Society.—In May, 1892, the Society was registered under Act XXI of 1860 in accordance with the Resolution passed at the Special General Meeting held on 26th March, 1892.

Acknowledgments.—The Committee had occasion to record their thanks to Messrs. J. M. Henry, John Cameron, J. T. Ferguson, G. M. Woodrow, T. H. Storey, J. Beck, M. Ridley, W. Gollan, J. W. Dumergue, J. Phillips, E. M. Breithaupt and M. R. Weld, and also to Hon. Mr. J. F. Price, C.S. and Rev. G. Richter, for communications made to the Society during the year.

Government Grant.—The monthly grant of Rs. 250, and the extra grant of Rs. 500, were continued. In this connection the Committee desire to cordially thank His Excellency, the President of the Society, for the interest which he continues to evince in the work of the Society.

Obituary.—The Committee received with regret the news of the death of Rai Bahadoor Tukhat Singjee, Rao of Baidla, who joined the Society as a Life Member, in 1887.

Committee Members.—During the year, Colonel E. A. Bruce, Messrs. H.C. King, and W. Keess, resigned their seats on the Committee, and Messrs. C. Slater, A. T. Arundel, T. W. Rawlins, and Colonel Fane Sewell, joined the Committee.

Exchange of Publication.—Copies of our Proceedings were as usual sent to the Government of India, to Kew, and the Principal Botanical gardens at Home, in India, and the Colonies, to each of our correspondents, and to all members of the Society.

Seeds and Plants distributed to Botanical Gardens, &c.

Erythroxylon Coca seed		770
Lathyrus sylvestris	packets.	11
Pulse seed to Melbourne	,,	20
Tree and shrub seeds	,,	198
Anona cherimolia to Kurnool	plants.	3
A Wardian case to Port Blair containing ...	,,	25
Khus khus grass seed to Mr. Don Luis Moyana, Spain...	oz.	5

Seeds and Plants given to Members gratis.

Palms		265
Ferns		169
Hibiscus		105
Trees, shrubs, and other plants		1,504
Assorted packet of Vegetable seeds each containing 28 varieties for Members annual supply ...	packets	78½
Assorted flower seeds each one containing 40 varieties for Members annual supply ...	tins	77
Cut flowers	baskets	27

Seeds and Plants, &c., sold:—

Plants		5,130
Tamarind plants		426
Mango grafts and seedlings		362
Guinea grass		500
Flower pots		1,076
Vegetable seeds	packets.	1,766
Flower seeds	,,	845
Manure	carts.	6
Lucerne seed	lb. 75	4 oz.
Albizzia moluccana seed	,, 7	1½ ,,
Hurrialee grass seed	,, 13	10 ,,
Casuarina seed	,, 23	0 ,,
Butea frondosa seed	,, 20	0 ,,
Grevillea robusta seed	,, 19	11 ,,
Inga dulcis seed	measures 233 or 610	pounds
Coir netting for fernery, &c.	rolls.	49
Hanging baskets	,,	32
Bouquets, wreaths, crosses, and baskets of flowers	,,	400
Victoria Regia seed	,,	18
Fourcroya bulblets	,,	3,000
Eucharis and other bulbous plants	,,	89
Kigelia pinnata seed	,,	200
Tree and shrub seeds	packets.	142
Wood sold by auction, &c.	Rs. 88	14 as.

The following is a list of the Plants added to the Gardens during 1892 :—

Cassia multijuga.
Corypha sp.
Ptychoraphis augusta.
Bentinckia nicobarica.
Eucalyptus rostrata.
,, citriodora.
,, Gunnii
,, drepanophylla.
Acacia decurrens.
Brownea grandiceps.
Anona cherimolia.
Hevea braziliensis.
Amaryllis of 60 varieties.
Tree potato.
Phalænopsis grandiflora.
Albizzia moluccana.
Begonias of sorts
Chinese sacred lily.
Pholidota imbricata.
Dendrobium barbatulum.
,, macrostachyum.
Bolbophyllum nilgherrense.
Tacsonia sp.
Clematis gourania.
Stigmaphyllum aristatum
Rhyncospermum jasminoides.
Passiflora alba.
,, cærulea

Agency for Plants and Seeds.—During the year, many indents for rare and economic plants as shewn below were made by planters and others, most of which requests we were able to carry out.

Butter nuts.
Pinus seed.
Rhubarb.
Arnotto.
Dindigul Tobacco.
Cardamum plants.
Saffron plants (Crocus).
Boswellia serrata.
Cloves.
Nutmeg.
Cinnamon.
Guizotia seed.
Mangosteen.
Cherimoyer.
Reana seed.
Amherstia nobilis.
Spineless Erythrina.
Ceara rubber.
Lathyrus sylvestris.
Grevillea robusta.
Eucalyptus seed.
Erythroxylon Coca seed.
Cephaëlis ipecacuanha.
Albizzia moluccana.
Citrus japonica.
Coffee seeds.

Flower Show.—The Annual Flower Show was held on Saturday, the 25th February, 1893, after the expiration of the year under review, but in accordance with the usual custom it is noticed in the report for 1892.

The following figures show the receipts for admission to the show during the past 15 years.

		1st Class.			2nd Class.			3rd Class.			Total.		
		Rs	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1878	...	203	0	0	117	0	0	26	8	0	346	8	0
1879	...	230	0	0	98	4	0	35	10	0	363	14	0
1880	...	247	0	0	85	10	0	46	9	10	379	3	10
1881	...	315	0	0	121	0	0	67	0	0	503	0	0
1882	...	440	0	0	141	4	0	84	14	0	666	2	0
1883	...	427	0	0	148	8	0	91	10	0	667	2	0
1884	...	375	0	0	174	12	0	106	14	0	656	10	0
1885	...	328	0	0	144	0	0	85	12	0	557	12	0
1886	..	425	0	0	162	0	0	107	2	0	694	2	0
1887	...	349	0	0	175	2	0	116	15	0	641	1	0
1888	...	347	0	0	181	4	0	117	8	3	645	12	3
1889	...	404	0	0	202	0	0	108	6	0	714	6	0
1890	...	434	0	0	217	0	0	114	4	0	765	4	0
1891	...	369	0	0	214	8	0	121	0	0	704	8	0
1893	...	392	0	0	188	12	0	90	0	0	670	12	0

The following figures show the number of exhibits in 91 and 93: though there was a large reduction in the number of exhibits in Class VIII., the show of fruits was very good. In

all the other classes except Class III., there was a marked improvement in the number of exhibits.

	Number of exhibits.	
	1891	1893.
Class I, Flowers in Pots, exclusive of Annuals ...	22	27
Class II, Annuals in Pots	24	50
Class III, Cut flowers...	15	9
Class IV, Ferns, foliage plants, &c.	24	32
Class V, Rare plants	1	3
Class VI, Vegetables grown by amateurs	79	84
Class VII, Vegetables grown anywhere	227	251
Class VIII, Fruits	147	82
Class IX, Vegetables and flowers from Police, &c. ...	7	4
Extra Prize offered by Government for Tea, Tobacco, Silk, Fibre, &c.	30	41

The Privilege of free admission to school boys under fourteen years of age was availed of by 350 boys of various schools.

Alterations in the Gardens.—Owing to the abnormally dry season and the full occupation of our staff in watering duties, no additions were attempted to walks or houses, but advantage was taken of the early rains to commence planting and various economic trees were started in new positions. In the Nursery, a collection of Fourcroyas, planted several years ago to supply the then vigorous demand, had become unsightly and were removed, and the plot of ground will be utilized for beds for garden stock, being in semi-shade and peculiarly suited for that purpose; Several of the hedges, stunted under the shade of trees have also been removed. Several clumps of overgrown Paritium tiliaceum near the principal entrance, were cleared and the place filled with lower growing plants and flowering shrubs. A mound, the Cacteæ and Euphorbieæ growing on which had become unsightly, was removed to throw open to view the portion of the gardens recently planted with Palms. A specimen of Oxandra virgata, the West Indian Lance wood tree was planted out in the open space west of the office, and so far, is doing well.

Members.—During the year, 13 Members (10 A and 3 B Class) were elected against 7 (3 A and 4 B) in 1891. The total number of Subscribing Members at the end of 1891, (A 75 and B 42) 117 and the end of 1892, the numbers were (A 71 and B 36) 107.

On 2nd March, 1892, Colonel LaTouche resigned the Hony. Secretaryship as he was about to leave India and was succeeded by Colonel Cox. Colonel Moore, was elected Chairman on 6th April, 1892.

Income and Expenditure.—The receipt inclusive of monthly allowance of Rs. 250 and Rs. 500 extra grant were Rs. 10,086-5-10 and the expenses Rs. 9,909-0-6, details of which will be found in the statement attached to this Report.

MADRAS, 13*th March*, 1893.

To

THE HONORARY SECRETARY,

Agri-Horticultural Society, Madras.

DEAR SIR,

As requested by the Committee, we have audited the accounts of the Society for 1892 and have found them correct. The accompanying statement show the working for the year under review.

Yours faithfully,

D. A. J. CROMBIE,
JOS. G. MCKERTICH, } *Auditors.*

FINANCIAL STATEMENT FOR 1892.

Receipts.

	RS.	A.	P.	RS.	A.	P.
Balance with Messrs. Binny & Co., 31st Dec., 1891.	1,080	7	0			
Cash in hand	72	15	0			
Do.	2	5	3	1,155	11	3
Government allowance at Rs. 250 a month ...	3,000	0	0			
Do. extra for 1892	500	0	0	3,500	0	0
Subscriptions	.....			2,411	0	0
Sale of seeds	1,749	12	9			
,, of plants	1,303	1	0			
,, of sundries	850	12	6			
Loan of plants	225	13	0			
Interest from Messrs. Binny & Co. ...	45	14	7	4,175	5	10
Rupees...				11,242	1	1

Expenditure.

				Rs.	A.	P.
Sundry expenses for 1892 as per statement annexed				9,909	0	6
Cash with Messrs. Binny & Co., on 31st Dec., 1892.	1,246	5	7			
Cash on hand as per Expense Book ,, ...	25	3	0			
,, ,, Receipt Book ,, ...	61	8	0	1,333	0	7
Rupees...				11,242	1	1

PARTICULARS OF EXPENDITURE.

	Rs.	A.	P.
Petty Articles, Cooly, Rail Charge, &c., recoverable	450	0	9
Garden and Office expenses unrecoverable ...	224	6	4
Fixed Establishment	4,507	3	4
Cooly	1,017	5	8
Postage on Letters & Proceedings	97	10	6
Country seeds purchased	469	15	9
Plants purchased	257	15	7
Periodicals	92	4	0
Printing charges	262	12	5
Manure	64	14	0
Red Earth	6	4	0
Sand	3	12	0
Coir Netting	84	10	0
Pots	155	0	6
Advertising seeds and plants for sale &c. ...	111	11	0
Flower show advertising	38	0	0
Municipality for water supply	260	8	1
Bonus to P. Sethumbara Moodelliar, late Head Clerk of the Society	500	0	0
Repairs	21	8	2
Registering the Society..	102	8	0
English Vegetable and Flower seeds ...	895	7	6
Tank deepening	30	0	0
Commission to Messrs. Binny & Co.. ...	94	4	5
Municipal Water, House & Lightning Tax ...	45	12	0
Quit Rent	4	10	6
Lawn mowers repaired...	110	8	0
Rupees...	9,909	0	6

Proposed by Mr. J. L. Walker, seconded by Dr. Bourne and carried unaminously that the Report be adopted and published.

The following gentlemen were elected as Members of the Committee for the coming year.

Arundel, A. T. Esq.
Branson, R. Esq.
Bourne, Dr. A. G.
Clogstoun, H. F. Esq.
Crombie, D. A. J. Esq.
Duncan, Dr. D.
Moore, Colonel G. J. M.
Rawlins, T. W., Esq.
Sewell, Colonel Fane.
Walker, J. L. Esq.
Conington, C. W., Esq,
Thanakoti Mudellyar Rai Bahadur, A.
Cox, Colonel H. W. H.

Proposed by Dr. Bourne, seconded by Col. Moore and carried unaminously that a vote of thanks be accorded to Messrs. D. A. J. Crombie, and J. G. McKertich for kindly auditing the accounts for 1892.

Proposed by Mr. Thanakoti, Moodellyar seconded by Mr. Crombie and carried unanimously that a vote of thanks be accorded to Colonels W. P. La Touche and H. W. H. Cox for their services as Honorary Secretaries, during the past year.

Proposed by Mr. Keess, seconded by Mr. Walker, and carried unanimously that a vote of thanks be accorded to Colonel G. J. M. Moore for his conduct in the chair.

MEMBERS OF THE SOCIETY, ON THE 31st DECEMBER, 1892.

President.

The Right Hon. Lord Wenlock, G.C.I.E.

Honorary Members.

Bernays L. A. Esq.
Hooker, Sir J. D. K.C.S.I., C.B.
Ferrier, General J. P.

Extraordinary Members.

Benson, Lt.-General R.
Bidie, Surgeon-General G. C.S.I.
Cleghorn, Dy. Inspector-Genl. H.
Duff Sir M. E. Grant, G.C.S.I.
Thanakoti Mudellyar Rai Bahadur, A.
Lawson, Sir Charles, A.
Steavenson, Joseph, Esq.
Vizianagaram, H. H. The Maharajah of, G.C.I.E.
Whiteside, W. S. Esq.

Subscribing Members (A Class.)

Arundel, A. T. Esq., C.S.
Betts, W. S., Esq.
Boosey, T. J., Esq.
Bobbili, H. H. The Rajah of
Bishop, the Right Reverend Lord, of Madras.
Branson, R., Esq.
Beck, J., Esq.
Barclay, E., Esq.
Branfoot, Surgeon Lt.-Col., A. M.
Bruce, Colonel E. A.
Branson, the Hon. J. H. Spring.
Cox, Colonel H. W. H.
Collins, the Honorable Chief Justice Sir Arthur.
Cowie, D. W., Esq., C.S.
Clogstoun, H. F., Esq., C.S.
Cramp, J. Esq.
Conington, C. W. Esq.
Duncan, Dr. D.
Deane, G. W., Esq.
Emery, W. F., Esq.
Elialvar Naidu, P., Esq.
Ferguson, J. T. Esq.
Gajputhee Row, Rajah Sahib, G. N. C.I.E.
Gill, F. M. G., Esq.
Gooboor Estate, Koppa, Manager of
Holmes, W. T., Hamilton, Esq.
Handley, the Hon. Justice.
Homayunjah Bahadoor, Hon. Meer,
Hammick, M. Esq., C.S. [C.I.E.
Harding, H. O. D., Esq.
Kyd, John, Esq.
Keess, W. Esq.
Moore, Colonel, G. J. M.
Muthusawmy Iyer, the Hon. Sir Justice, K.C.I.E.
Mahamud Sheriff Rhan Bahadoor.
Meynell, E. Esq.
Miller, L. C. Esq.
Minchin, J. W., Esq.
Norton, Eardley, Esq.
Nicholas, J. P., Esq.
Oakes, A. W. D., Esq.
Oakes, W. H., Esq.
Oppert, Dr G.
Price, the Hon. J. F., C.S.
Potts, R. U., Esq.
Rungasayee Naidoo, P. Esq.
Rajah of Ramnad, Setupathi
Rajah V. Muddukrishna Yachandra Bahadoor.
Romilly, George, Esq.
Stokes, The Hon. Sir, H. .E., K.C.S.I
Stuart, H. A. Esq.
Sashiah Sastri, A., Dewan Regent, C.S.I.
Stanes, Thomas, Esq.
Sah Man Mull, Esq.
Slater, C. Esq.
Strivatsanka, Row. V. Esq.
Sewell, Colonel Fane.
Trollope E., Esq.
Thorburn, W. M., Esq.
Taylor, W., Esq.
Taylor, T. A., Esq.
Thandavraya Pillay, A. P., Esq.

Travancore, H. H. The Maharajah of, C.S.I.
Walch, G. T., Esq.
Wenlock, H. E., The Right Hon. Lord, G.C.I.E.
Weir, T., Esq.
Weld, M. R., Esq.
Wybrow, G. D., Esq.
Wilson, Major-Genl. C. H.
Zemindar of Gantamanaikanur.
,, Parlakemedy.

(B) class.

Breithaupt, E. M., Esq.
Bliss, H. W., Esq.
Bourne, Dr. A. G.
Chentsal Row, P., Esq., C.S.I.
Cheragh Ali Azam Jah Jung
Crombie, D. A. J., Esq.
Etty, Rev. C. J.
Feast, Rev. R. B.
Garstin, The Hon. J. H.
Grant, Surgeon-Captain, A. E.
Holmes, W. C., Esq.
Hon. Secretary, Bamboo Club.
Krishna Murti Iyengar, T., Esq.
Leighton, D. E. W., Esq.
Lawson, A. E., Esq.
Laing, T. W., Esq.
Muthusawmy Moodellyar, Dr. P. S., F.L.S.
Mahamud Nizam Uddin Khan Bahadoor
Mahamud Mirza Ismail Khan
Meyer, W. S., Esq.
Marjoribanks, J. Alex., Esq.
Rawlins, T. W., Esq.
Rama Row, T., Esq., C.S.I.
Sama Row, C. R., Esq.
St. Leger, W. D., Esq.
Shaw, W. S., Esq.
Seetharamiah Garoo, Rajah, C. V. Chinna
Streenivasa Row Sahib, A. (Jaghirdar of Arnee)
Sandoor, H. H. The Rajah of
Taylor, Rev. A. C.
Underwood, Colonel T. O.
Venkasamy Row, Rao Bahadoor, T.
Vasudeva Row, R. H., Esq.
Willock, W. A., Esq.
Wyatt, S., Esq.
Yonge, G. L., Esq.